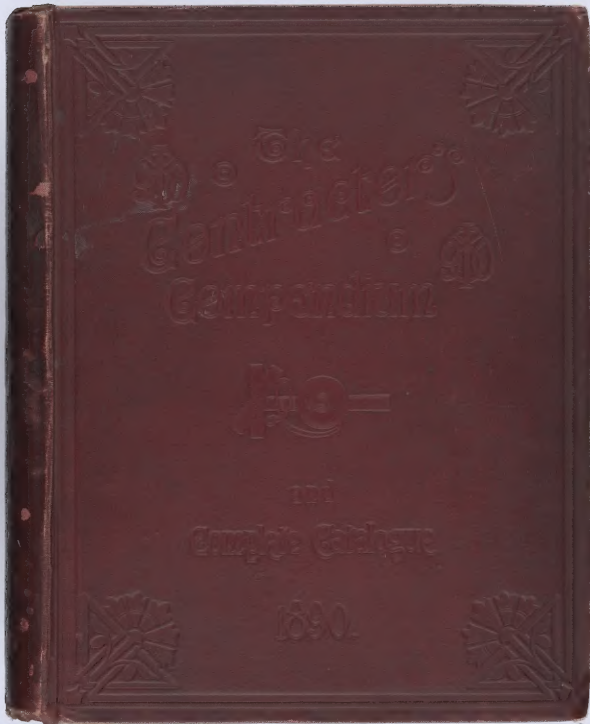




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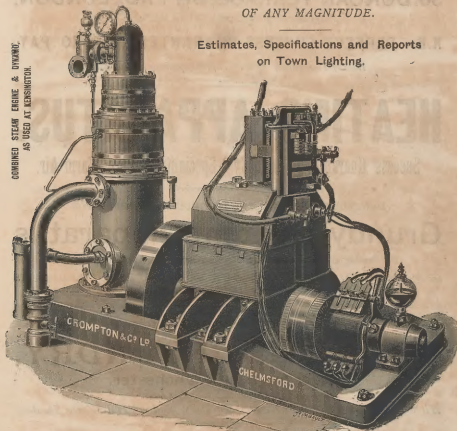
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THE
CONTRACTORS'



COMPENDIUM,

AND

Complete * Catalogue

EDITED BY

JOHN EDWARD SEARS,

Fellow of the Royal Institute of British Architects.

FRONTISPIECE PORTRAIT

W. J. HOWARD COLLS, R.D.

President of the National Association of Master Builders.

FOURTH ANNUAL ISSUE.

1890.

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CONTRACTORS' COMPENDIUM

B



PREFACE.

THE present volume takes a different form to previous issues of this COMPENDIUM. The suggestions received, together with the desirability of giving information having an annual character, have led to the introduction of new features which it is hoped will lend interest and freshness to each successive issue of the work, and at the same time increase its practical usefulness for reference.

The new features and improvements appearing in this issue are, briefly:—

1. *ILLUSTRATIONS*.—Comprising a Portrait of J. HOWARD COLLS, President of the National Association of Master Builders, as Frontispiece; a coloured plate, being a reproduction of a Water Colour Drawing by ALFRED WATERHOUSE, R.A., and Illustrations of Modern Architecture in Great Britain and Abroad.
2. A Price Book, drawn up on the lines of a Bill of Quantities.
3. Acts of Parliament and Legal Decisions of the year.
4. Sales of Property of the year.
5. The more effective division of the COMPLETE CATALOGUE into Sections by a Title Page to each Section of a different tint to the body of the Catalogue.
6. The provision of space for personal notes at each division throughout the work.
7. The printing of the COMPLETE CATALOGUE, the INFORMATION, and the INDEX, on paper of different tints.

We are gratified by the great interest taken in the work, and are indebted to the Architects who have kindly nominated Builders for the Address Register, 1,100 having forwarded nominations, and on pages 9 and 10 are given a few extracts from letters of approbation.

Our thanks are due to Mr. COLLS for his kindness in giving a sitting for his Portrait as frontispiece, and to Mr. WATERHOUSE for lending the Water Colour Drawing of the staircase in the Hotel de Ville aux les Bains for reproduction.

The principal feature of this work, "THE COMPLETE CATALOGUE," has received unqualified approval exceeding our most sanguine expectations, and this new plan for placing the contents of circulars and catalogues in a convenient form for the reference of those using building appliances, is appreciated alike by the profession and manufacturers, to the latter of whom it has been of considerable value. Although it may not be always possible to trace benefits from advertising, especially where the goods are not ordered direct,

distinct returns have been received from announcements in this work, and in some cases firms who issue particulars of their goods in no other way have had their business extended by their announcements in the CATALOGUE. The largely increased and renewal orders also confirm the many statements we have received of the benefit accruing from the work.

Too much importance cannot be attached to the desirability of giving full particulars, illustrations and prices of all goods advertised, instead of announcements being inserted in advertisement form.

The paging of the Work is irregular in parts owing to alterations and extension of Advertisements after it had been made up and partly printed; and some firms had to be refused who forwarded copy too late. Two plates and some pages arranged for could not be completed in time owing to the prevailing illness, hence one or two folios are missing.

There may possibly be other imperfections due to the rapidity with which the book has been produced; where such occur we ask the kind indulgence of our readers.

It is our desire to place an increasingly useful work of reference in the hands of the profession, and to enable us to do so we shall prize the co-operation of all connected with the Building and Engineering trade.

The following current publications have been referred to for information, illustrations, &c.:—

The Builder.

The Building News.

The Estates Exchange Reports.

The Estates Gazette.

The American Architect and Building News.

Encyclopédie d'Architecture.

Zeitschrift für Bauwesen.

&c., &c.

AUSTRALASIAN DEPARTMENT.

The growing importance of the Colonial Trade has led us to make arrangements to conserve the interests of the profession in the Colonies on the one side, and on the other to endeavour to extend the relations of our British Manufacturers over the Southern Hemisphere. The Australasian Agency has been placed in the hands of MESSRS. GRONDONA & CO., LIMITED, 64, King Street, Melbourne, who will be prepared to supply the COMPENDIUM and make contracts for advertisements in the Colonies. To our English Manufacturing friends, we are sure that great advantage will accrue from this new departure, as MESSRS. GRONDONA & CO., LTD., is a Company composed for the most part (in addition to several of the leading Melbourne Architects) of Traders connected with Building, &c. MESSRS. GRONDONA will be pleased to give our English Subscribers and Advertisers the fullest information respecting the Colonial Trade in its varied branches. This is an excellent opportunity for Manufacturers to open up or to extend their connection in the Colonies.

THE EDITOR.

All communications intended for the Editor to be addressed to

JOHN ED. SEARS, F.R.I.B.A.,

THE COMPENDIUM PUBLISHING OFFICES,

16, New Bridge Street, London, E.C.

This Compendium is prepared on similar lines to the Architects' Compendium of which the following opinions are taken from 1,500 letters received in approbation.

ALFRED WATERHOUSE, R.A.
(President of the Royal Institute of British Architects)

Readers advertisements useful in a way they have not been hitherto.

THOMAS NADEN, Esq.
(President Birmingham Architectural Association, 14, Temple Row, Birmingham.)

I cannot speak in too great praise of the ARCHITECTS' COMPENDIUM as a reference for Manufacturers in the Building Trade. Most of the house sheets sent to Architects had their way to the waste paper basket, but this useful book can be used for constant reference.

THOMAS H. FLEMING, Architect,
Wolverhampton.

(Extract from Letter to a Manufacturer)

If you do anything in advertising, or wish to push your manufactures before Architects, &c., I do not know of any means so likely to benefit you as advertising in this work.

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The collection of advertisements of Manufacturers, Specialists, with the good indexes thereto, is a capital feature. It is as a book for ready reference in all practical building matters that its merit lies. Manufacturers should name prices whenever possible.

THOMAS VERITY, F.R.I.B.A.

Of great service to the profession.

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(Late President of the Society of Architects.)

It is an exceedingly useful book. Scarcely a day passes but some catalogue or trade list comes to me, but when wanted they are almost impossible to be found. Often a single sheet advertisement shows something I think of using but when the time comes I have lost it, and cannot remember the name of the advertiser. If we could have all these in a book with an index, which we have always in use, we should at any time be able to find what we want, and advertisers would not throw their money away on circulars, which, if not thrown into the waste-paper basket at once, might just as well be, because never to be found when wanted.

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WM. J. JENKINS, Architect, Bodmin.

It will be a pleasure to refer to it when specifying goods. One great burden has been the number, variety, and size of the various books, lists, &c. Now, one takes your book and can find almost everything in a few seconds.

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I was showing your ARCHITECTS' COMPENDIUM to a War Department Surveyor this morning, who is very anxious to obtain a copy. If your pressings such a valuable work to the profession is with a view of giving advertisers a means of bringing their specialities to notice, it certainly bore fruit on this occasion, as the gentleman was enquiring for a firm who supplied (lb. cranes, and I was enabled to give him the information from your book.

GEORGE WATSON, Architect, Penrith.

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USHER & ANTHONY, Architects, Bedford

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G. G. HOSKINS, F.R.I.B.A.
Darlington

Allow me to congratulate you upon its production. As a work of reference I shall find it of much use.

DANIEL CAMERON, Architect,
Inverness

Takes the place of the ever-accumulating mass of trade circulars in an Architect's office.

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A very useful book for reference when specifying works, which I hope to turn to on many occasions.

OLIVER CALDWELL, M.S.A.,
Penzance

One of the most valuable books any Architect can possibly have on his office.

CHAS. KIRK & SONS, Architects, Slough.

Have already referred to it with advantage, and think it fully deserves its title.

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Three of the advertisers in it have already profited to the extent of an order a piece through the possession of the Catalogue by myself.

J. T. WHEEN, Architect, Sheffield.

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Its value to advertisers cannot, I am sure, be overestimated. As anyone who has experienced the annoyance of having to hunt up some advertised specialty will agree that those articles most readily referred to are likely to be quoted.

J. MONROE, City Surveyor, Belfast.

It is just such a work as I have long since said was required. Over and over again I have told travellers that the system of sending loose sheets is a very bad one, they are always lost, but your book has all so well arranged that I could not refrain from writing thus.

OPINIONS.

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I saw one at Mr. Henry Cooper's office last Saturday, at Maidenhead, and was highly commended to for reference

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CHARLES BARRY, F.S.A., F.R.I.B.A., Westminster

I beg to thank you for your very valuable work, and for the copy for my son, Mr. C. E. Barry, who is in Washington, and to whom it shall be sent

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Architect Office of Public Works, Dublin

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It now bids fair to develop into a very useful book of reference, and if it prevents Architects being flooded with trade circulars, which puzzle his impatience to keep so as to be able to find what he wants readily, and, at the same time, saves manufacturers a lot of expense, it will be a very good thing, and I think it promises fair to do this.

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PAGES 94, 95.

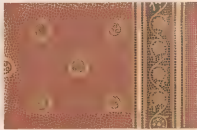
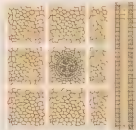
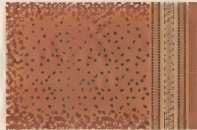
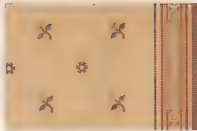
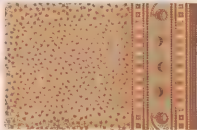
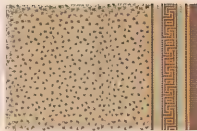
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 illustrating the interesting arrange-
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SCALE: ONE INCH TO A FOOT

PLATE ILLUSTRATIONS.

Frontispiece: PORTRAIT OF J. HOWARD COLLS, *President of the National Association of Master Builders.*

Coloured Plate: STAIRCASE IN THE HOTEL DE VILLE, AIX LES BAINS, WATER COLOUR DRAWING, BY ALFRED WATERHOUSE, R.A. *Facing page 14.*

MODERN ARCHITECTURE.

ENGLAND—

WICK VICARAGE, PERSHORE, ASTON WENS, *Architect.* Page 17.

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GERMANY—

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DWELLING HOUSE, CHARLOTTENBERG, H. HARTUNG, *Architect.* Page 25.

AUSTRALIA—

BUILDING OF THE AUSTRALIAN PROPERTY AND INVESTMENT CO., MELBOURNE, OAKDEN, ANDERSON, KEMP & BREWSTER, *Architects.* Page 29

AMERICA—

BUILDING OF THE BOSTON BUILDINGS DENVER CO., LTD., ANDREWS & JACQUES, *Architects.* Page 31

HOUSES AT PITTSFIELD, MASS., MELLER, WESTELL & KIRBY, *Architects.* Page 33

PLATES OF MANUFACTURES.

MAW & CO.'S PATENT INTERLOCKING MOSAIC TILES FOR PAVEMENTS.

Facing this Page

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LUSTRE TILES.

By J. C. EDWARDS.

Facing Page 38

This Tile plate illustrates the brilliant "Lustre Tiles" manufactured by J. C. EDWARDS, of Runcorn. The beauty of the designs is admirably shown by the Tiles forming the plates.

They rival the finest mediæval Italian and Spanish examples, combining with the gorgeous effects of burnished metals the unobscured colours of the rainbow. These Tiles are made for fire-places, wall decoration, cabinet work, &c., &c.

HEARTH TILES

By G. WOOLLISCROFT & SON.

Facing Page 104.

The pattern sheet inserted by Messrs WOOLLISCROFT & SON in this issue contains a few specimens of the Hearth-Tile Designs shown in their Illustrated Catalogue

The centre panels consist of selections from their "Decorative Art Tile" patterns arranged with 12" x 6" and 6" x 6" Tiles, and may be varied if desired. The principal feature in these Tiles is the subdued colours used in the Decoration, the effect of which is greatly enhanced by the peculiarly rich and soft tone of the glaze.

PLATE ILLUSTRATIONS.

The enamelled coloured strips combined with them to form the hearth are as near a representation as possible of the colours sent to the lithographers, but are in no way representative of the diversity of tones and colours Messrs. WOOLLENGAST & SON are able to produce.

STAINED AND BRILLIANT CUT GLASS, FAIENCE, &c.

By C. EVANS & CO.

Pages 262 to 267.

The manufactures illustrated by Messrs C EVANS & Co. comprise their Stained Glass and Brilliant Cut Glass, Architectural Faience, raised and enamelled Tiles, Capitals, Dadoes, &c.; Underglazed Tile Panels with Faience, and raised tile surroundings, as erected in many London restaurants (The subject "Bacchus" is from a tile panel in course of erection at the "Fountain" Tavern, Camberwell Gate); their Venetian Glass Mosaic, a beautiful branch of mural art decoration, also their Ceramic Mosses for pavements, the designs shown being suitable for halls, entrances, &c.

CHANNEL PIPES.

By BROAD & CO.

Pages 309 to 310

Messrs. BROAD & Co.'s leading Sanitary specialties comprise their non-percolating drain pipes, their white enamelled Channel Pipes and Bends, their Channel Interceptor, their Exello Grease Traps, and other Traps, Gallies, &c., &c.

SANITARY EARTHENWARE.

By T. W. TWYFORD.

Pages 345 to 350

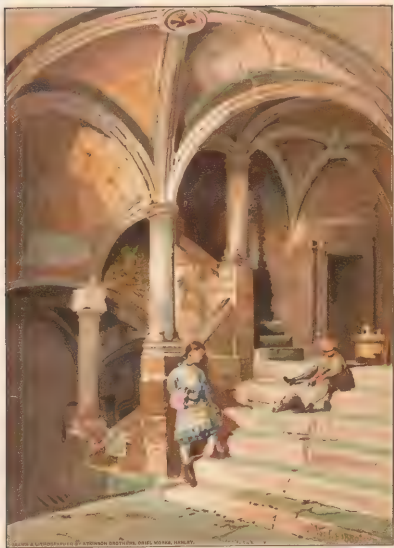
Mr. TWYFORD again illustrates his well-known and excellent series of Closets, comprising the Unitas Combination the National Side Outlet, the Alliance Front Outlet, the Crown Closet, and the Deluge Wash down Closet. Also the Cardinal and Ideal Lavatory Basins.

FIBROUS PLASTER DECORATION.

By THE HITCHINS' FIREPROOF PLASTERING CO.,
LIMITED.

Facing Page 486.

This plate represents Fibrous Plaster Decoration executed by the HITCHINS' FIREPROOF PLASTERING COMPANY. Fibrous Plaster is being largely used for the best description of plasterers' work, from the readiness with which it can be fixed, and the consequent saving of time in the completion and drying of buildings. The specimens shown on our plate are of excellent design, representing ornamental ceiling panels, cove, and cornices. The cornices consist of wood pulp, for which the Company have the sole agency.



STAIRCASE, HOTEL DE VILLE, AIX LES BAINS.

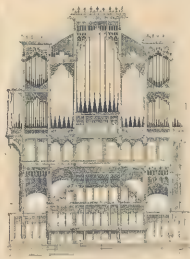
REPRODUCTION OF WATER COLOUR DRAWING BY ALFRED WATERHOUSE, R.A.



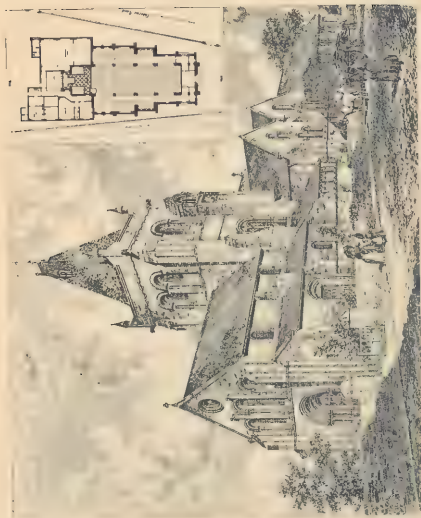


CONGREGATIONAL CHURCH, BROMLEY, KENT:
ADDITIONS TO EXISTING SCHOOL.

W. D. BARNES & SONS, LTD.
BROMLEY, KENT.



CHURCH OF ST. MARK, PROSEA, DISTRICT OF BIRMINGHAM, L.A.R.
DESIGN BY G. H. GILBERT

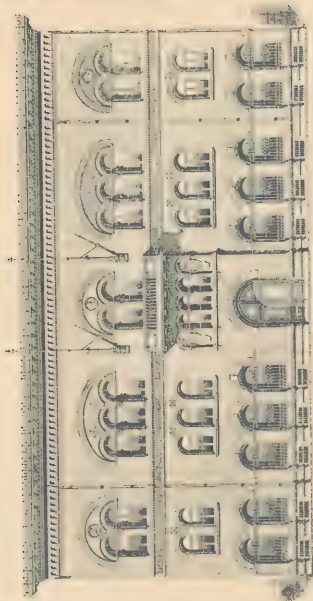


CHAPEL AT JESMOND, NEWCASTLE-ON-TYNE

JAN. 1844



CENTRAL DOME, PARIS EXHIBITION.



SECTION

IMPERIAL PRINTING OFFICE, BERLIN



VIEW FROM THE STREET

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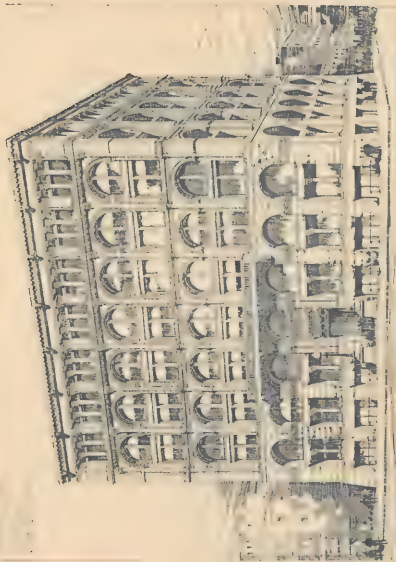


PLAN OF GROUND FLOOR



SECTION AND VIEW OF ENTRANCE







Ipswich, Mass.
1880



Ipswich, Mass.
1880

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Frontispiece Portrait—

J. HOWARD COLLS, *President of the
National Association of Master Builders*

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A—BRICKS, TILES, AND TERRA COTTA.

E. P. BASTIN,
ROWLANDS CASTLE
DARK RED AND RICH RED
FACING AND MOULDED BRICKS

AS SELECTED BY

ALFRED WATERHOUSE, Esq., R.A., for facing the NEW HOTEL METROPOLE, at Brighton, now being erected.

Works **ROWLANDS CASTLE, HANTS.** London Office—49, **PINSBURY PAVEMENT, E.C.**

THE Rowlands Castle Bricks are manufactured from a very fine bed of red Terra-Cotta clay, which is admitted to be equal, if not superior, to any found in England. This clay is plastic, readily worked, and turns a rich red colour without the addition of any coloring matter, having the requisite proportion of oxide of iron naturally incorporated with it. The bricks do not deteriorate by exposure to the weather; on the contrary, their rich colour is clearly brought out. Great care is taken in the preparation of the clay, which, by means of improved machinery, is thoroughly ground and mixed before being made into bricks or other goods.

After being moulded and then carefully dried, either in the open air or in sheds heated by artificial means, the bricks are burnt at a high temperature in specially constructed kilns.

✱ **RICH ♦ RED ♦ COLOUR.** ✱

By this means I am able to produce a high-class facing brick of a dark or rich red colour, possessing exceptional non-absorbent and weather-resisting properties, the surface having a soft velvety appearance which is pleasing to the eye and does not reflect the glare of the sun.

It is generally acknowledged that the comparatively small additional cost incurred by the use of a really good facing brick is amply repaid by the greatly improved appearance of the building compared with work faced with inferior bricks, which usually require a colour wash to make them at all presentable, and which has to be repeated from time to time.

The Rowlands Castle Bricks, being made from a *strong Terra-Cotta clay*, and not from mild loamy material, possess great strength and durability, and are therefore specially suited for heavy work and high buildings. Messrs. David Kirkaldy & Son have tested a number of Rowlands Castle Bricks, and it will be seen from the accompanying report that they stood the heavy pressure of over 300 tons per square foot before crushing.

✱ **RUBBING ♦ BRICKS.** ✱

The Rowlands Castle Rubbing Bricks, for gauged work and for carving and cutting, are of very superior quality and colour. They are made from carefully washed earth, and will be found to work readily.

✱ **MOULDED ♦ AND ♦ ORNAMENTAL ♦ BRICKS.** ✱

In the following pages a selection of patterns of moulded and ornamental bricks, strings, panels, &c. are shown—other designs can be promptly produced from Architects' own drawings.

Having erected additional drying sheds for the manufacture of moulded and ornamental bricks, I can execute orders at very short notice either in summer or winter. This clay is specially suited for the manufacture of these goods, a great variety of which have been made by me some of large size and intricate design.

A—BRICKS, TILES, AND TERRA COTTA.

* TILES, * RIDGES, * AND * FINIALS. *

From the peculiarly dense and impervious nature of the Rowlands Castle Terra-Cotta clay, it is well adapted for the manufacture of Roofing Tiles, Ridge Tiles, and Finials. A great variety of these are made, of which a few patterns of these generally kept in stock are given: any other designs can be promptly made to drawing or model.

* TERRA-COTTA. *

Having extensive beds of fine Terra-Cotta clay, I am able to supply Terra Cotta of high quality and good colour. This clay will stand great heat, and, when burnt, has a very close texture and metallic ring.

The Works are about five minutes' walk from Rowlands Castle Station on the London & South Western, and three miles from Havant, where the London, Brighton & South Coast Railway joins the London & South Western, and from which place the two companies run over the same lines to Southsea and Portsmouth, about seven miles distant.

Architects are invited to visit the Works, where they can satisfy themselves as to the superior quality of the clay as well as inspect the manufactured goods.

E. P. BASTIN.

49, FINSBURY PAVEMENT, E.C.

Among the various Mansions and important Buildings where Rowlands Castle Facing and Moulded Bricks have been used are the following—

BUILDING	ARCHITECT	BUILDER
Doulton & Co., Albert Embankment London ..	M. P. Manning, Esq., F.I.B.A. ..	Messrs J. Simpson & Son.
Hackney College, Finchley Road, London ..	Messrs W. Harvey & Bernard Smith	Mr. A. Besh.
Palace Court, Bayswater, London ..	A. W. Bloomfield, Esq., M.A., F.I.B.A.	Messrs J. Simpson & Son.
Ditcham House, near Petersfield ..	G. Atchison, Esq., A.R.A. ..	Messrs Hayward Bros., Limited
Lythe Hill House, Haslemere ..	Arthur Smith, Esq., R.A. ..	G. Newman & Co., Limited
Assembly Rooms, Bognor ..	A. Waterhouse, Esq., R.A. ..	Messrs. Foster & Dixon, Rugby
Watergate House, near Chichester ..	A. H. Ford, Esq. ..	Messrs W. R. & C. Light.
Penhale Road Board Schools, Portsmouth ..	Alfred H. Bone, Esq. ..	Mr. H. Jones.
Conservative Club, Portsmouth ..	C. W. Houghton, Esq. ..	Mr. W. D. Lewis
Portsea Island Co-operative Stores ..	Messrs Whitfield & Thomas ..	Mr. J. Betterill.
"Hawthill," near Leatherhead ..	H. J. Snell, Esq. ..	Mr. John Read
Young Men's Christian Association, Plymouth ..	C. W. Bevis, Esq. ..	Messrs Spriggins Bros.
Redhill House, Havant ..	J. H. Ball, Esq. ..	Mr. H. Lawrence.
Beach Mansions, Southsea ..	J. Colson, Esq. ..	Mr. P. Peters
"Rowlands," Lingfield, Sussex ..		

Also on other Buildings at Guildford, Godalming, Eastbourne, Brighton, Hastings, Bournemouth, Wimbledon, Surbiton, Woking, &c., &c.

COPY OF REPORT.

DESCRIPTION.	STRESS IN LBS.		
	Cracked slightly.	Cracked generally.	Cracked and Slightly Dropt.
6. Red Brick, hand-made, recessed one side, R.C. on all in recess.			
MEAN PRESSURE ..	76,807	140,617	164,953
LBS. PER SQUARE INCH ..	2,208	4,035	4,713
TONS PER SQUARE FOOT ..	141'9	259'5	303'1

Bolled between pieces of pane three-eighths inch thick.

(Signed) DAVID KIRKALDY & SON, 99, SOUTHWARK STREET, LONDON

CONTRACTORS' COMPENDIUM, E

53

A BRICKS, TILES, AND TERRA COTTA.

ROWLANDS CASTLE BRICK AND TILE WORKS.

ABRIDGED PRICE LIST.

Best Dark Red Facings, hand-made

" Rich
" Medium "

Good Red Facings

Hard Red Paving Bricks, 8 in.
Red Rich Rubbers, 8½ inch. and 10½ inch.

Prices of the above on application.

RED MOULDED BRICKS.

PLATE I. 3-INCH MOULDED BRICKS AS FACHS AND STRETCHERS

Returns					3d each				
Patterson Nos. 1, 2, & 3 per 100	..	..	..	5/6	Moulded Strings, Nos. 25 to 31 per 100	..	..	..	20/6
" 4 to 22	..	..	..	9/6	" 32 to 40	..	..	..	11/6
" 23 & 24	..	..	..	10/6					

PLATE II.—MOULDED GILLS, JAMBS, PLINTHS AND COPINGS.

Patterson, Nos. 101, 102, and 103	.. ..	per 100 10/6	Patterson, Nos. 125, 126 and 127	.. ..	per 100, 10/6
" 104, 105, 106, 107, and 108	.. ..	" 7/6	Flutings, Nos. 128, 129, 131 and 132	.. ..	each 4d.
" 109 and 110	.. ..	" 11/6	Copings, Nos. 133, 134 and 135	.. ..	per 100, 7/6
" 111	.. ..	" 25/	" " 136 .. ..	.. ..	each 3d.
" 112 to 123	.. ..	" 9/6	" 137 and 138	.. ..	" 4d.
" 124	.. ..	each 3d			

PLATE III.—SQUARES, DIAPERS, PATERNÉ, AND PANELS

6 in. Diaper and Pattern, Nos. 70 to 99	.. ..	each 5d	12 in. Pattern, Nos. 120 and 121	.. ..	each 2/
9 in. Paterné, Nos. 100 to 109	.. ..	" 10d.	Swing, No. 211 (24 in. x 12 in.)	.. ..	" 7/

PLATE VIII. 6 IN. AND 9 IN SQUARES

6 in. Squares, Nos. 201 to 212		each 4½d.	9 in. Squares, Nos. 213 to 220		each 1/
--------------------------------	-------	-----------	--------------------------------	-------	---------

PLATE IX. STRING COURSES

6 in. Strings, Nos. 221 to 226	.. ..	each 4d.	3 in. Strings, Nos. 227 to 233	.. ..	" 1½d.
			External Angles, each 40/8		

PLATE X. STRING COURSES AND DIAPERS

Nos. 234 to 237 Prices on application			6 in. Diapers, Nos. 238 and 239		each 4d
---------------------------------------	-------	--	---------------------------------	-------	---------

PLATE XI. PANELS Prices on Application

PLATE IV. PANELS AND KEY BRICKS

Panel, Nos. 1 to 5	.. ..	each 6	Key Bricks, No. 7, 9½, No. 8	.. ..	each 5 ½
No. 4 18 each, No. 5	.. ..	" 13	Nos. 10 and 11	.. ..	" 6
No. 6 18 each, No. 7	.. ..	" 10	No. 12	.. ..	" 10½
			Complete Set, No. 13, 40/8		

PLATE V. RIDGES AND ROOFING TILES

Ridges Nos. 2, 3, and 4	.. ..	2½d. each	Roofing Tiles, plain, hand made, per 1,000	.. ..	33/
" 1	.. ..	" 4d. each	" " wide tiles for gables, No. 20	.. ..	per 100, 8/
" 2	.. ..	" 6d. each	Angles, Hip and Valley Tiles, Nos. 17, 18, and 19	.. ..	per 100, 21/
" 3 to 16	.. ..	" 7d. each	Ornamental Tiles, Nos. 21, 22, and 23	.. ..	per 1,000, 34/
Dark colours, 1 - per dozen extra.			Dark colours, 5 - per 1,000 extra		

PLATE VI.—FINIALS

Pattern, No. 1	.. ..	3/6 each	Pattern, No. 9	.. ..	11/ each
2	.. ..	3/6 each	" 10	.. ..	6/6 each
3	.. ..	3/6 each	" 11	.. ..	7/6 each
4	.. ..	4/6 each	" 12	.. ..	5/6 each
			" 13	.. ..	10 and 17 8/6 each

If Dark colour 1 - each Finial extra.

PLATE XII.—RIDGES, CROSBIES, AND FINIALS

Ridges, Nos. 24, 25, 29, and 33	.. ..	per foot run 1/	Crosses, No. 30, 70	.. ..	No. 21 9/6
" 26, 27, 30, 31, and 34	.. ..	" 1/6	Finial No. 14	.. ..	No. 19, 10/6 each
" 32 and 35	.. ..	" 9/6	" No. 15	.. ..	No. 24, 25
" 28 Prices on application.			" No. 27	.. ..	No. 25, 12/6

PLATE VII.—CHIMNEY POTS, CHIMNEY DIVISIONALS, &c.

Plain Chimney Pots, 9 in. high, 9½, 10, 10½, 11, 12, 14, 21, 22, each.	.. ..		Ornamental Pots, 26 in. high	.. ..	6- and 8 each
Ornamental Pots, 9 in. high, 10½, 11, 12, 14, 21, 22, each.	.. ..		Chimney Divisionals, all 3 in. thick	.. ..	3/ each

FLOWER VASES

10 in. 2/6, 9 in. 1/6, 6 in. 1/2

SEEDS. 3d. each.

Per 100 ..

7/6 and 10/6

GARDEN EDGING.

Complete Illustrated Catalogue, with full size Sections and full Price List, forwarded on application.

TERMS. All prices include delivery into trucks at Rowlands Castle L. & S. W. Railway, the purchaser paying Railway carriage. Accounts are payable on the 10th of the Month following delivery, and are then subject to 2½ per cent. discount.

E. P. BASTIN.

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WORKS: BASTIN, ROWLAND CASTLE

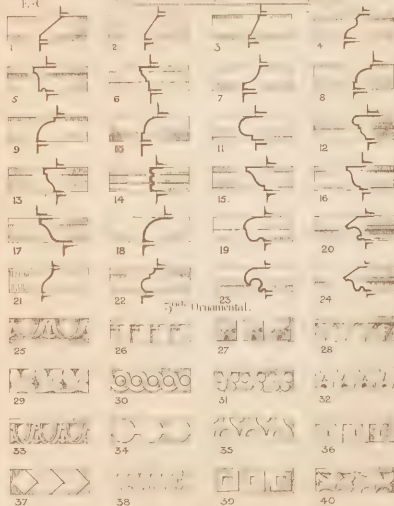
THE "ROWLANDS CASTLE" BRICK & TILE CO.

Office

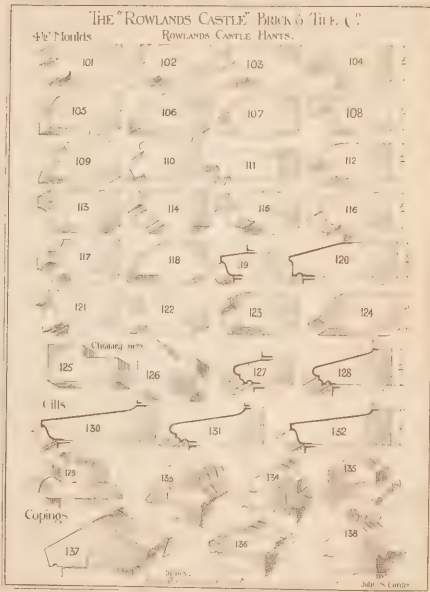
ROWLANDS CASTLE, HANTS.

49 Finsbury, Fenchurch
E.C.

5th Model as Working Sketches for Reentry



A.—BRICKS, TILES AND TERRA-COTTA.



A.—BRICKS, TILES AND TERRA-COTTA.

Plate 3.

London
Office

THE ROWLANDS CASTLE BRICK & TILE CO

Rowlands Castle
Hants

19 Fishery Row, N. 1

Green Daggers



70



77



73

Green Patience



79



80



81



82



83



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Green Patience



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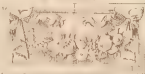


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Green Patience



110



111

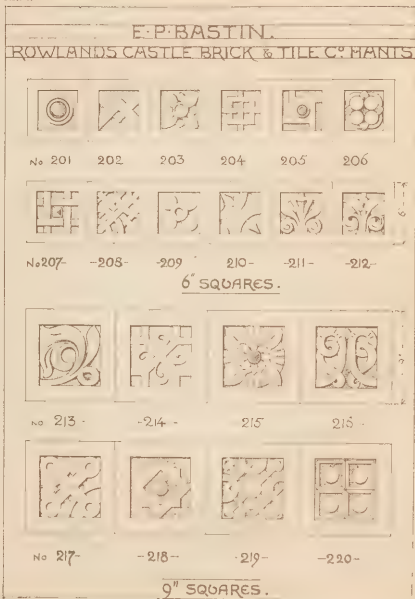


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Scale of Feet

John S. Gorder

A.—BRICKS, TILES AND TERRA-COTTA.



A.—BRICKS, TILES AND TERRA-COTTA.

Plate 9.

E. P. BASTIN.

ROWLANDS CASTLE BRICK & TILE CO. HANTS



No 221

222-



No -223-

-224-



No 225

6 STRINGS

226-



HEADERS 227

228

-229-



HEADERS 230

231 -

COMBINATION OF PATTERNS 230 & 231



HEADERS 3" STRING 232

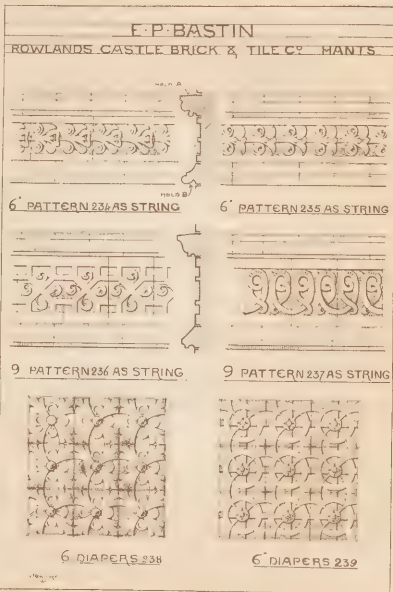
233 3" STRING STRETCHERS

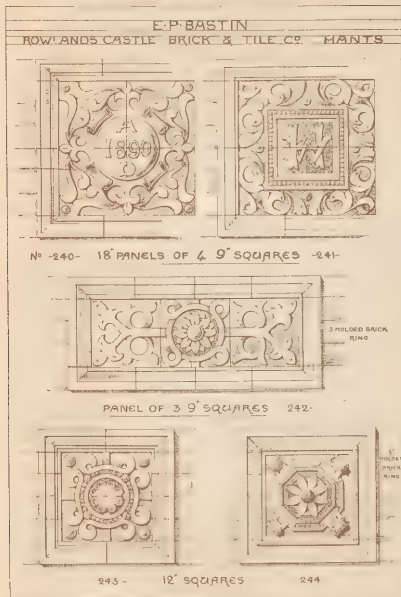


COMBINATION OF PATTERNS 232 & 233 TO FORM

3" STRINGS ALTERNATE HEADERS & STRETCHERS

A. —BRICKS, TILES AND TERRA-COTTA.





A.—BRICKS, TILES AND TERRA-COTTA.

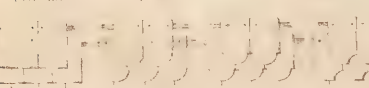
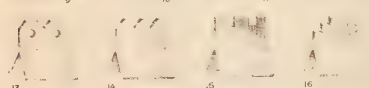
THE "ROWLANDS CASTLE" BRICK & TILE CO.

ROWLANDS CASTLE HANTS

Ornamental - Panels & Keys



THE ROWLANDS CASTLE BRICK & TILE CO
ROWLANDS CASTLE, HANTS.

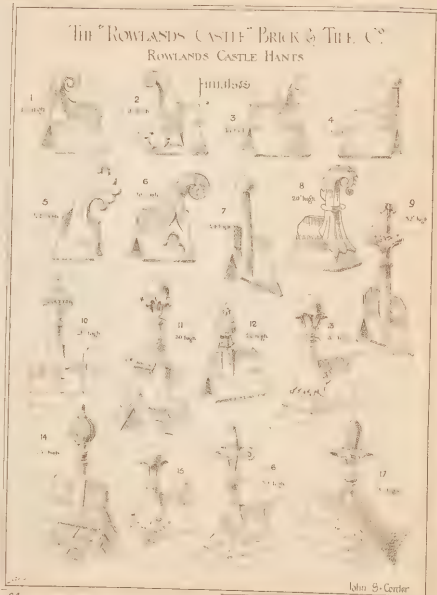


ROOF TILES

John Corder

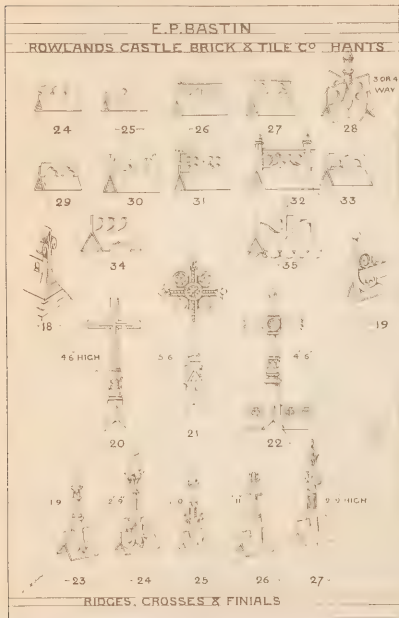
A.—BRICKS, TILES AND TERRA-COTTA.

Plate 6.



A.—BRICKS, TILES AND TERRA-COTTA.

Plate 12.



A. BRICKS, TILES AND TERRA-COTTA.



A—BRICKS, TILES, AND TERRA COTTA.

JOHN CADDICK,

(Late WHEATLY & CO., and WHEATLY & CADDICK),

SPOUTFIELD TILERIES, STOKE-ON-TRENT, STAFFORDSHIRE.

Postal and Telegraphic Address—JOHN CADDICK, STOKE-ON-TRENT

Manufacturer of

SUPERIOR PRESSED ROOFING TILES

In Red, Blue, & Broseley Colours;

ALSO

RIDGE TILES & FINIALS IN A GREAT VARIETY OF DESIGNS.

Pressed Paving Tiles: Red, Blue, and Buff.

IN THREE QUALITIES, viz.:

ORDINARY.



Suitable for Cottage Work, where a good cheap Quarry is wanted

SINGLE CROWN.



A Superior Quality for better class work.

DOUBLE CROWN



A Superfine Quality of extra make and finish, for first-class work.

BUFF PAVING TILES.

These being hard fired, I can strongly recommend to wear well with the Red and Blue.

* BRICKS, GARDEN BORDER TILES, &c., &c. *

ROOFING TILES.

These are made from selected Marls very close in body and after being subjected to great pressure and hard firing, will absorb little or no moisture. In quality, colour, and finish, they equal any tiles produced.

I have supplied them for many large and important Buildings, and have always given perfect satisfaction.

PRICE LIST & DESIGN BOOK FREE ON APPLICATION.

I have adopted as my Registered Trade Mark a



REGISTERED

Horse Shoe, with which all my Goods are stamped

TRADE MARK.

A—BRICKS, TILES, AND TERRA COTTA.

ESTABLISHED 1795.

Joseph Cliff & Sons, WORTLEY, LEEDS.

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"CLIFFS LEEDS"
"JOSEPH'S LIVERPOOL"

(Incorporated in the Leeds Fire Clay Co., Ltd.)

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MANUFACTURERS OF

Glazed & Enamelled Bricks & Tiles,
WHITE, COLOURED, SALT GLAZED, EMBOSSED, PRINTED, &c.

Cliff's Patent Bond for 4½ in., 6 in., 9 in. and 13¼ in. Walls.

MAJOLICA MOULDED & PLAIN GLAZED BRICKS.

Architectural Terra-Cotta, buff, red and salt glazed.

Hall's Patent Hanging Tiles,

FOR FACING OLD AND NEW WALLS, AND FOR LINING WOOD PARTITIONS.

**"IMPERIAL" PORCELAIN BATHS, SINKS, WASH-TUBS,
MANGERS, CISTERNS, TROUGHS, FOOT BATHS, &c.**

Wortley Faience, *Decorative & Constructive,*
Panels, Mouldings, Columns, Mantels, Fenders, &c., richly Glazed in many Artistic Colours.

**STONEWARE PIPES, CHANNELS, & SANITARY EARTHENWARE,
GULLEYS, SINKS, &c. & LAVATORIES, CLOSETS, &c.**

*Sole Makers of Winter's Channel Bands and Traps, Pate's, He's, Hagous', Dodds', Birds',
"Simplex," "Cetus," "Cecil," "Newman," and other Patent Traps, Gulleys, &c.*

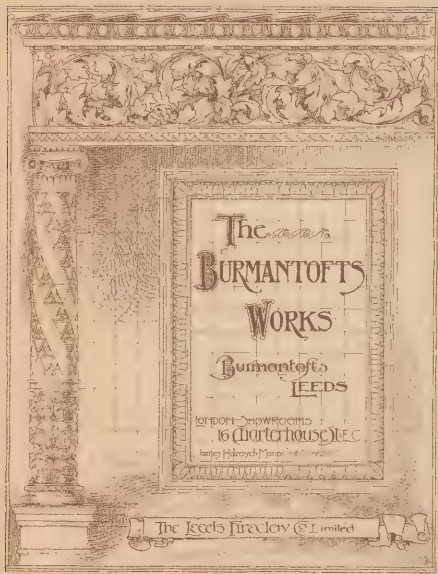
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INFIRMARIES · DAIRIES · ASYLUMS · HOSPITALS · LAVATORIES &c

Name of Works	Locality	Material	Architect
National Liberal Club	London	Faience	A Waterhouse RA
Technical Schools	Blackburn	Terra cotta & Colored Bricks	Sally FRBA Woodhouse & Wigglesby
Gran Depósito Distribuidor de Agua	Buenos Ayres	Faience & Colored Bricks	Bolaman Parsons & Bolaman
Hotel Metropole	Brighton	Terra cotta	A. Keblet & Co RA
Commercial Bank of Scotland	London	Faience	J. Mitchell & Wilson
National Provincial Bank	Manchester	Faience & Colored Bricks	A Waterhouse RA
Terment Houses	London	Terra cotta	John Dunn FRBA
Prudential Offices	Birmingham	Faience & Colored Bricks	A Waterhouse RA
New Premises Church St	Liverpool	Terra cotta	City Surveyor
University College	Liverpool	Faience & Colored Bricks	A Waterhouse RA
Garden Court Avery Hill	Eltham	Faience & Colored Bricks	Thos W. Coker FRBA
London Lancashire Insurance	Liverpool	Faience & Colored Bricks	A. Colshaw ARIBA
Free Library	Edinburgh	Faience	C. Washington Browne
Loudoun House	London	Terra cotta	John Dunn FRBA
Museum of Science and Art	Dublin	Faience	T. N. Deane & Son MRBI Ireland
Lancashire & Yorkshire Bank	Manchester	Faience & Colored Bricks	C. Heathcote FRBA
Commercial Bank of Scotland	London	Faience	J. M. For Anderson FRBA
Express Dairy	Hampstead	Faience	Keith D. Young FRBA
Turkish Bath Avery Hill	Eltham	Faience	Thos W. Coker FRBA
Middlesex Hospital Mortuary	London	Terra cotta	Keith D. Young FRBA
Hotel Metropole Turkish Bath	Brighton	Faience	A Waterhouse RA
London & S.W. Bank	London	Faience	Farneson FRBA & Gabriel ARIBA

A - BRICKS, TILES, AND TERRA COTTA.

Royal Infirmary	Liverpool	Faience & Glazed Bricks	A Waterhouse RA
Wright House Chapel	London	Terracotta & Faience	A Waterhouse RA
Station Hotel	Newcastle	Glazed Bricks & Faience	Wm Bell
Cafe Monica	London	Terracotta	Christopher & White
West Riding Asylum	Mansione	Faience & Glazed Bricks	J Vickers Edwards
Claybury Asylum	Woodford	Glazed Bricks	GT Hine FRIBA
Epidemic Hospital	Northingham	Glazed Bricks	A Brown MICE
Town Hall	Aberdeen	Faience	A Waterhouse RA
Fish Market	Liverpool	Glazed Bricks	City Surveyor
Midland Station Hotel	Bradford	Faience & Glazed Bricks	C Trubshaw F
Prudential Offices	Glasgow	Faience & Glazed Bricks	A Waterhouse RA
St Johns Market	Liverpool	Glazed Bricks	City Surveyor
Stock Exchange	Edinburgh	Faience	J McJachan
Jusser Hotel	Southsea	Faience	A H Bone
Grand Hotel Restaurant	Hasings	Faience	H Ward ARIBA
Ferguson Park	Paisley	Faience	H J Blanc & Gordon
Piccadilly House	London	Terracotta	Joseph & Smithem
Engine House Ferguson Mills	Paisley	Faience	Mortley & Woodhouse
Grand Cafe	Belfast	Faience	R Watt
Cos Offices	Belfast	Faience	R Watt
Malthouses House	London	Terracotta	J Dunn FRIBA
Yon College	London	Glazed Bricks	Sir AW Blomfield MA FRIBA FSA ARB
Canella Cafe	London	Faience	BT Fletcher FRIBA FSI
Brunch Bank of England	London	Glazed Bricks	Sir AW Blomfield MA &c
Heath's Premises	London	Terracotta	Christopher & White
Wright & Son	London	Glazed Bricks	Christopher & White

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A—BRICKS, TILES, AND TERRA COTTA.

LEICESTERSHIRE

RED PRESSED FACINGS, HARD & WELL MADE. MOULDED BRICKS.

ELLIS, PARTRIDGE & Co., **RED** GREYFRIARS, LEICESTER.
Manufacturers and Merchants.

RED SAND STOCK FACINGS { *Specially adapted for* SUBURBAN,
COUNTRY HOUSE, & CHURCH WORK.

All kinds of **BRICKS.** SLATING & TILING
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Telegrams: "ELCHO, LEICESTER."

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To establish a Cipher-Address
"HALL & BOARDMAN, SWADLINCOTE"

MANUFACTURERS OF
SEWERAGE PIPES,
FIRE BRICKS,
CHIMNEY TOPS, &c.

Swadlincote & Gadley Hill Collieries, near Burton-on-Trent.

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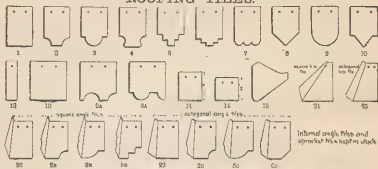
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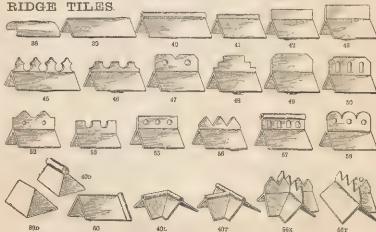
S. & E. COLLIER,

Manufacturers of the CELEBRATED READING RED TILES,
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ROOFING TILES.



RIDGE TILES.



FINIALS



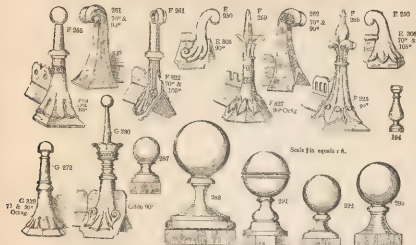
Scale 1/2 in. equals 1 ft.

A—BRICKS, TILES, AND TERRA COTTA.

Telegraphic Address—
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S. & E. COLLIER,

Manufacturers of the CELEBRATED READING RED TILES,
CROYLANDS POTTERIES, READING.



Scale 1/2 in equals 1 ft.

AIR BRICKS.

MURAL TILES.



CHIMNEY POTS.

Scale 1/2 inch equals 1 foot.



PRICES.

FREE ON TRUCKS AT READING STATION.
BREAKAGES AT THE RISK OF THE PURCHASER.

No.	Shape or Pattern.	Size. Diam.	Per. Doz.	No.	Shape. Diam.	Price Per Doz.	No.	Each.	No.	Each.	No.	Each.	No.	Each.	No.	Each.
1	3 1/2"	3 1/2"	1,000	38	1 1/2"	16.	100	39L	4 1/2"	100	39L	4 1/2"	100	39L	4 1/2"	100
2	3 1/2"	3 1/2"	"	39	1 1/2"	16.	"	40	4 1/2"	100	40L	4 1/2"	100	40L	4 1/2"	100
3	3 1/2"	3 1/2"	"	40	1 1/2"	16.	"	41	4 1/2"	100	41L	4 1/2"	100	41L	4 1/2"	100
4	3 1/2"	3 1/2"	"	41	1 1/2"	16.	"	42	4 1/2"	100	42L	4 1/2"	100	42L	4 1/2"	100
5	3 1/2"	3 1/2"	"	42	1 1/2"	16.	"	43	4 1/2"	100	43L	4 1/2"	100	43L	4 1/2"	100
6	3 1/2"	3 1/2"	"	43	1 1/2"	16.	"	44	4 1/2"	100	44L	4 1/2"	100	44L	4 1/2"	100
7	3 1/2"	3 1/2"	"	44	1 1/2"	16.	"	45	4 1/2"	100	45L	4 1/2"	100	45L	4 1/2"	100
8	3 1/2"	3 1/2"	"	45	1 1/2"	16.	"	46	4 1/2"	100	46L	4 1/2"	100	46L	4 1/2"	100
9	3 1/2"	3 1/2"	"	46	1 1/2"	16.	"	47	4 1/2"	100	47L	4 1/2"	100	47L	4 1/2"	100
10	3 1/2"	3 1/2"	"	47	1 1/2"	16.	"	48	4 1/2"	100	48L	4 1/2"	100	48L	4 1/2"	100
11	3 1/2"	3 1/2"	"	48	1 1/2"	16.	"	49	4 1/2"	100	49L	4 1/2"	100	49L	4 1/2"	100
12	3 1/2"	3 1/2"	"	49	1 1/2"	16.	"	50	4 1/2"	100	50L	4 1/2"	100	50L	4 1/2"	100
13	3 1/2"	3 1/2"	"	50	1 1/2"	16.	"	51	4 1/2"	100	51L	4 1/2"	100	51L	4 1/2"	100
14	3 1/2"	3 1/2"	"	51	1 1/2"	16.	"	52	4 1/2"	100	52L	4 1/2"	100	52L	4 1/2"	100
15	3 1/2"	3 1/2"	"	52	1 1/2"	16.	"	53	4 1/2"	100	53L	4 1/2"	100	53L	4 1/2"	100
16	3 1/2"	3 1/2"	"	53	1 1/2"	16.	"	54	4 1/2"	100	54L	4 1/2"	100	54L	4 1/2"	100
17	3 1/2"	3 1/2"	"	54	1 1/2"	16.	"	55	4 1/2"	100	55L	4 1/2"	100	55L	4 1/2"	100
18	3 1/2"	3 1/2"	"	55	1 1/2"	16.	"	56	4 1/2"	100	56L	4 1/2"	100	56L	4 1/2"	100
19	3 1/2"	3 1/2"	"	56	1 1/2"	16.	"	57	4 1/2"	100	57L	4 1/2"	100	57L	4 1/2"	100
20	3 1/2"	3 1/2"	"	57	1 1/2"	16.	"	58	4 1/2"	100	58L	4 1/2"	100	58L	4 1/2"	100
21	3 1/2"	3 1/2"	"	58	1 1/2"	16.	"	59	4 1/2"	100	59L	4 1/2"	100	59L	4 1/2"	100
22	3 1/2"	3 1/2"	"	59	1 1/2"	16.	"	60	4 1/2"	100	60L	4 1/2"	100	60L	4 1/2"	100
23	3 1/2"	3 1/2"	"	60	1 1/2"	16.	"	61	4 1/2"	100	61L	4 1/2"	100	61L	4 1/2"	100
24	3 1/2"	3 1/2"	"	61	1 1/2"	16.	"	62	4 1/2"	100	62L	4 1/2"	100	62L	4 1/2"	100
25	3 1/2"	3 1/2"	"	62	1 1/2"	16.	"	63	4 1/2"	100	63L	4 1/2"	100	63L	4 1/2"	100
26	3 1/2"	3 1/2"	"	63	1 1/2"	16.	"	64	4 1/2"	100	64L	4 1/2"	100	64L	4 1/2"	100
27	3 1/2"	3 1/2"	"	64	1 1/2"	16.	"	65	4 1/2"	100	65L	4 1/2"	100	65L	4 1/2"	100
28	3 1/2"	3 1/2"	"	65	1 1/2"	16.	"	66	4 1/2"	100	66L	4 1/2"	100	66L	4 1/2"	100
29	3 1/2"	3 1/2"	"	66	1 1/2"	16.	"	67	4 1/2"	100	67L	4 1/2"	100	67L	4 1/2"	100
30	3 1/2"	3 1/2"	"	67	1 1/2"	16.	"	68	4 1/2"	100	68L	4 1/2"	100	68L	4 1/2"	100
31	3 1/2"	3 1/2"	"	68	1 1/2"	16.	"	69	4 1/2"	100	69L	4 1/2"	100	69L	4 1/2"	100
32	3 1/2"	3 1/2"	"	69	1 1/2"	16.	"	70	4 1/2"	100	70L	4 1/2"	100	70L	4 1/2"	100
33	3 1/2"	3 1/2"	"	70	1 1/2"	16.	"	71	4 1/2"	100	71L	4 1/2"	100	71L	4 1/2"	100
34	3 1/2"	3 1/2"	"	71	1 1/2"	16.	"	72	4 1/2"	100	72L	4 1/2"	100	72L	4 1/2"	100
35	3 1/2"	3 1/2"	"	72	1 1/2"	16.	"	73	4 1/2"	100	73L	4 1/2"	100	73L	4 1/2"	100
36	3 1/2"	3 1/2"	"	73	1 1/2"	16.	"	74	4 1/2"	100	74L	4 1/2"	100	74L	4 1/2"	100
37	3 1/2"	3 1/2"	"	74	1 1/2"	16.	"	75	4 1/2"	100	75L	4 1/2"	100	75L	4 1/2"	100
38	3 1/2"	3 1/2"	"	75	1 1/2"	16.	"	76	4 1/2"	100	76L	4 1/2"	100	76L	4 1/2"	100
39	3 1/2"	3 1/2"	"	76	1 1/2"	16.	"	77	4 1/2"	100	77L	4 1/2"	100	77L	4 1/2"	100
40	3 1/2"	3 1/2"	"	77	1 1/2"	16.	"	78	4 1/2"	100	78L	4 1/2"	100	78L	4 1/2"	100
41	3 1/2"	3 1/2"	"	78	1 1/2"	16.	"	79	4 1/2"	100	79L	4 1/2"	100	79L	4 1/2"	100
42	3 1/2"	3 1/2"	"	79	1 1/2"	16.	"	80	4 1/2"	100	80L	4 1/2"	100	80L	4 1/2"	100
43	3 1/2"	3 1/2"	"	80	1 1/2"	16.	"	81	4 1/2"	100	81L	4 1/2"	100	81L	4 1/2"	100
44	3 1/2"	3 1/2"	"	81	1 1/2"	16.	"	82	4 1/2"	100	82L	4 1/2"	100	82L	4 1/2"	100
45	3 1/2"	3 1/2"	"	82	1 1/2"	16.	"	83	4 1/2"	100	83L	4 1/2"	100	83L	4 1/2"	100
46	3 1/2"	3 1/2"	"	83	1 1/2"	16.	"	84	4 1/2"	100	84L	4 1/2"	100	84L	4 1/2"	100
47	3 1/2"	3 1/2"	"	84	1 1/2"	16.	"	85	4 1/2"	100	85L	4 1/2"	100	85L	4 1/2"	100
48	3 1/2"	3 1/2"	"	85	1 1/2"	16.	"	86	4 1/2"	100	86L	4 1/2"	100	86L	4 1/2"	100
49	3 1/2"	3 1/2"	"	86	1 1/2"	16.	"	87	4 1/2"	100	87L	4 1/2"	100	87L	4 1/2"	100
50	3 1/2"	3 1/2"	"	87	1 1/2"	16.	"	88	4 1/2"	100	88L	4 1/2"	100	88L	4 1/2"	100
51	3 1/2"	3 1/2"	"	88	1 1/2"	16.	"	89	4 1/2"	100	89L	4 1/2"	100	89L	4 1/2"	100
52	3 1/2"	3 1/2"	"	89	1 1/2"	16.	"	90	4 1/2"	100	90L	4 1/2"	100	90L	4 1/2"	100
53	3 1/2"	3 1/2"	"	90	1 1/2"	16.	"	91	4 1/2"	100	91L	4 1/2"	100	91L	4 1/2"	100
54	3 1/2"	3 1/2"	"	91	1 1/2"	16.	"	92	4 1/2"	100	92L	4 1/2"	100	92L	4 1/2"	100
55	3 1/2"	3 1/2"	"	92	1 1/2"	16.	"	93	4 1/2"	100	93L	4 1/2"	100	93L	4 1/2"	100
56	3 1/2"	3 1/2"	"	93	1 1/2"	16.	"	94	4 1/2"	100	94L	4 1/2"	100	94L	4 1/2"	100
57	3 1/2"	3 1/2"	"	94	1 1/2"	16.	"	95	4 1/2"	100	95L	4 1/2"	100	95L	4 1/2"	100
58	3 1/2"	3 1/2"	"	95	1 1/2"	16.	"	96	4 1/2"	100	96L	4 1/2"	100	96L	4 1/2"	100
59	3 1/2"	3 1/2"	"	96	1 1/2"	16.	"	97	4 1/2"	100	97L	4 1/2"	100	97L	4 1/2"	100
60	3 1/2"	3 1/2"	"	97	1 1/2"	16.	"	98	4 1/2"	100	98L	4 1/2"	100	98L	4 1/2"	100
61	3 1/2"	3 1/2"	"	98	1 1/2"	16.	"	99	4 1/2"	100	99L	4 1/2"	100	99L	4 1/2"	100
62	3 1/2"	3 1/2"	"	99	1 1/2"	16.	"	100	4 1/2"	100	100L	4 1/2"	100	100L	4 1/2"	100

NOTE. In ordering Prices, please give the Number of each Chimney and Base. Quantities will be any Base of the same letter. The cost is according to the
affixing the price of the Chimney to that of the Base required. Complete Lists on application.

'A-BRICKS, TILES, AND TERRA COTTA.

J. K. COOPER & SONS,

Brick, Tile & Terra Cotta Works: PINKNEY'S GREEN, MAIDENHEAD. Others: CASTLE HILL, MAIDENHEAD.

Manufacturers of every kind of Plain, Molded and Ornamental Red Bricks, Plain and Ornamental Roofing Tiles; Ridges; Finials; Cresses, Chimney Pots; Copings; Paving Bricks and Tiles, etc.;

Also of Terra Cotta Goods of every description in Red or Buff.



THESE Goods have long been noted for their high-class quality, rich colour, good design and finish, and especially weather-resisting qualities, and are extensively used by leading Architects in all parts of the Kingdom.

The greatest care is taken in the selection, washing, and mixing of the Clays; and in the thorough burning of the Goods.

Ridges and Finials have always been, and are now, our Specialty, but a thoroughly good hand-made pressed facing brick is now being made from a new bed of exceptionally fine Clay—a brick capable of sustaining great weight, non-absorbent, with sharp angles, good shape and colour.

To meet the keen competition in this as in all other Manufactures, we have modified our prices wherever we have found it possible to do so, without in any way detracting from the quality or finish of the Goods.

All Bricks and Roofing Tiles are finished with a sanded surface, unless ordered otherwise.

PRICE LIST OF GOODS ILLUSTRATED.

ALL PRICES QUOTED INCLUDE PACKING INTO TRUCKS AT COOKHAM STATION. ALL BREAKAGES AT THE RISK OF THE PURCHASER.

TERMINALS.				CHIMNEY POTS.			
No.	Each.	No.	Each.	No.	Each.	No.	Each.
No. 1	27 6	No. 50	47 6	No. 99	26 6	No. 147	26 6
2	26 6	51	46 6	100	25 6	148	25 6
3	25 6	52	45 6	101	24 6	149	24 6
4	24 6	53	44 6	102	23 6	150	23 6
5	23 6	54	43 6	103	22 6	151	22 6
6	22 6	55	42 6	104	21 6	152	21 6
7	21 6	56	41 6	105	20 6	153	20 6
8	20 6	57	40 6	106	19 6	154	19 6
9	19 6	58	39 6	107	18 6	155	18 6
		59	38 6	108	17 6	156	17 6
		60	37 6	109	16 6	157	16 6
		61	36 6	110	15 6	158	15 6
		62	35 6	111	14 6	159	14 6
		63	34 6	112	13 6	160	13 6
		64	33 6	113	12 6	161	12 6
		65	32 6	114	11 6	162	11 6
		66	31 6	115	10 6	163	10 6
		67	30 6	116	9 6	164	9 6
		68	29 6	117	8 6	165	8 6
		69	28 6	118	7 6	166	7 6
		70	27 6	119	6 6	167	6 6
		71	26 6	120	5 6	168	5 6
		72	25 6	121	4 6	169	4 6
		73	24 6	122	3 6	170	3 6
		74	23 6	123	2 6	171	2 6
		75	22 6	124	1 6	172	1 6
		76	21 6				
		77	20 6				
		78	19 6				
		79	18 6				
		80	17 6				
		81	16 6				
		82	15 6				
		83	14 6				
		84	13 6				
		85	12 6				
		86	11 6				
		87	10 6				
		88	9 6				
		89	8 6				
		90	7 6				
		91	6 6				
		92	5 6				
		93	4 6				
		94	3 6				
		95	2 6				
		96	1 6				
		97	0 6				
		98	0 6				

CROSBIES.				ROOFING TILES AND VENTILATORS.			
No.	Each.	No.	Each.	No.	Each.	No.	Each.
No. 1	27 6	No. 50	47 6	No. 99	26 6	No. 147	26 6
2	26 6	51	46 6	100	25 6	148	25 6
3	25 6	52	45 6	101	24 6	149	24 6
4	24 6	53	44 6	102	23 6	150	23 6
5	23 6	54	43 6	103	22 6	151	22 6
6	22 6	55	42 6	104	21 6	152	21 6
7	21 6	56	41 6	105	20 6	153	20 6
8	20 6	57	40 6	106	19 6	154	19 6
9	19 6	58	39 6	107	18 6	155	18 6
		59	38 6	108	17 6	156	17 6
		60	37 6	109	16 6	157	16 6
		61	36 6	110	15 6	158	15 6
		62	35 6	111	14 6	159	14 6
		63	34 6	112	13 6	160	13 6
		64	33 6	113	12 6	161	12 6
		65	32 6	114	11 6	162	11 6
		66	31 6	115	10 6	163	10 6
		67	30 6	116	9 6	164	9 6
		68	29 6	117	8 6	165	8 6
		69	28 6	118	7 6	166	7 6
		70	27 6	119	6 6	167	6 6
		71	26 6	120	5 6	168	5 6
		72	25 6	121	4 6	169	4 6
		73	24 6	122	3 6	170	3 6
		74	23 6	123	2 6	171	2 6
		75	22 6	124	1 6	172	1 6
		76	21 6				
		77	20 6				
		78	19 6				
		79	18 6				
		80	17 6				
		81	16 6				
		82	15 6				
		83	14 6				
		84	13 6				
		85	12 6				
		86	11 6				
		87	10 6				
		88	9 6				
		89	8 6				
		90	7 6				
		91	6 6				
		92	5 6				
		93	4 6				
		94	3 6				
		95	2 6				
		96	1 6				
		97	0 6				
		98	0 6				

CROSBIES.				ROOFING TILES AND VENTILATORS.			
No.	Each.	No.	Each.	No.	Each.	No.	Each.
No. 1	27 6	No. 50	47 6	No. 99	26 6	No. 147	26 6
2	26 6	51	46 6	100	25 6	148	25 6
3	25 6	52	45 6	101	24 6	149	24 6
4	24 6	53	44 6	102	23 6	150	23 6
5	23 6	54	43 6	103	22 6	151	22 6
6	22 6	55	42 6	104	21 6	152	21 6
7	21 6	56	41 6	105	20 6	153	20 6
8	20 6	57	40 6	106	19 6	154	19 6
9	19 6	58	39 6	107	18 6	155	18 6
		59	38 6	108	17 6	156	17 6
		60	37 6	109	16 6	157	16 6
		61	36 6	110	15 6	158	15 6
		62	35 6	111	14 6	159	14 6
		63	34 6	112	13 6	160	13 6
		64	33 6	113	12 6	161	12 6
		65	32 6	114	11 6	162	11 6
		66	31 6	115	10 6	163	10 6
		67	30 6	116	9 6	164	9 6
		68	29 6	117	8 6	165	8 6
		69	28 6	118	7 6	166	7 6
		70	27 6	119	6 6	167	6 6
		71	26 6	120	5 6	168	5 6
		72	25 6	121	4 6	169	4 6
		73	24 6	122	3 6	170	3 6
		74	23 6	123	2 6	171	2 6
		75	22 6	124	1 6	172	1 6
		76	21 6				
		77	20 6				
		78	19 6				
		79	18 6				
		80	17 6				
		81	16 6				
		82	15 6				
		83	14 6				
		84	13 6				
		85	12 6				
		86	11 6				
		87	10 6				
		88	9 6				
		89	8 6				
		90	7 6				
		91	6 6				
		92	5 6				
		93	4 6				
		94	3 6				
		95	2 6				
		96	1 6				
		97	0 6				
		98	0 6				

CROSBIES.				ROOFING TILES AND VENTILATORS.			
No.	Each.	No.	Each.	No.	Each.	No.	Each.
No. 1	27 6	No. 50	47 6	No. 99	26 6	No. 147	26 6
2	26 6	51	46 6	100	25 6	148	25 6
3	25 6	52	45 6	101	24 6	149	24 6
4	24 6	53	44 6	102	23 6	150	23 6
5	23 6	54	43 6	103	22 6	151	22 6
6	22 6	55	42 6	104	21 6	152	21 6
7	21 6	56	41 6	105	20 6	153	20 6
8	20 6	57	40 6	106	19 6	154	19 6
9	19 6	58	39 6	107	18 6	155	18 6
		59	38 6	108	17 6	156	17 6
		60	37 6	109	16 6	157	16 6
		61	36 6	110	15 6	158	15 6
		62	35 6	111	14 6	159	14 6
		63	34 6	112	13 6	160	13 6
		64	33 6	113	12 6	161	12 6
		65	32 6	114	11 6	162	11 6
		66	31 6	115	10 6	163	10 6
		67	30 6	116	9 6	164	9 6
		68	29 6	117	8 6	165	8 6
		69	28 6	118	7 6	166	7 6
		70	27 6	119	6 6	167	6 6
		71	26 6	120	5 6	168	5 6
		72	25 6	121	4 6	169	4 6
		73	24 6	122	3 6	170	3 6
		74	23 6	123	2 6	171	2 6
		75	22 6	124	1 6	172	1 6
		76	21 6				
		77	20 6				
		78	19 6				
		79	18 6				
		80	17 6				
		81	16 6				
		82	15 6				
		83	14 6				
		84	13 6				
		85	12 6				
		86	11 6				
		87	10 6				
		88	9 6				
		89	8 6				
		90	7 6				
		91	6 6				
		92	5 6				
		93	4 6				
		94	3 6				
		95	2 6				
		96	1 6				
		97	0 6				
		98	0 6				

CROSBIES.				ROOFING TILES AND VENTILATORS.			
No.	Each.	No.	Each.	No.	Each.	No.	Each.
No. 1	27 6	No. 50	47 6	No. 99	26 6	No. 147	26 6
2	26 6	51	46 6	100	25 6	148	25 6
3	25 6	52	45 6	101	24 6	149	24 6
4	24 6	53	44 6	102	23 6	150	23 6
5	23 6	54	43 6	103	22 6	151	22 6
6	22 6	55	42 6	104	21 6	152	21 6
7	21 6	56	41 6	105	20 6	153	20 6
8	20 6	57	40 6	106	19 6	154	19 6
9	19 6	58	39 6	107	18 6	155	18 6
		59	38 6	108	17 6	156	17 6
		60	37 6	109	16 6	157	16 6
		61	36 6	110	15 6	158	15 6
		62	35 6	111	14 6	159	14 6
		63	34 6	112	13 6	160	13 6
		64	33 6	113	12 6	161	12 6
		65	32 6	114	11 6	162	11 6
		66	31 6	115	10 6	163	10 6
		67	30 6	116	9 6	164	9 6
		68	29 6	117	8 6	165	8 6
		69	28 6	118	7 6	166	7 6

A—BRICKS, TILES, AND TERRA COTTA.

No. 11. 1

J. K. COOPER & SON
• BIRKENHEAD • GREEN • DUBLIN •

These ornaments are made of every species of clay and fired in the kiln, and are of every size and shape.

Each about $\frac{1}{2}$ inch to one foot

Specimens may be seen at the Museum of Building Appliances,
 23 Maddox Street,
 London, W.

Entered at Stationers Hall.

J. K. COOPER & SON
 BIRKENHEAD • GREEN • DUBLIN •

A—BRICKS, TILES, AND TERRA COTTA.

Sheet 122

J. K. COOPER & SON.

MIRREYS-GREEN-DANIEL-ATHEM

These Designs are made of a very superior clay, and have the appearance of natural stones, and are perfectly adapted for the purpose of building.



Specimens may be seen at the residence of Boddys Appliances

10, Old Street

London W.C.

Printed at the London Press

A - BRICKS, TILES, AND TERRA COTTA.

BRICKS
Slip 12

J. K. COOPER & SONS.
BRICKS - CRAGG - CHINESE -



See edge from side.

Scale 1/2 inch = 1 foot

THESE Tiles have a peculiarly smooth surface, and consequently retain their colour for a very long time; but this circumstance being objected to by some architects, J. K. C. & Sons beg to state that, on receiving a month's notice, they will supply them of the same material and colour, but with a rough surface, so as to ensure their acquiring a softer tone from exposure to the atmosphere. They will also, if requested, supply them in brown slate, or straw-berry colour.

These patterns having been surreptitiously copied, the Tiles, etc., manufactured by J. K. C. & Sons will, in future, bear their Trade Mark.

ARCHITECTS' OWN DESIGNS CAREFULLY AND PROMPTLY EXECUTED.

A—BRICKS, TILES, AND TERRA COTTA.

Street № 5

J. K. COOPER & SONS,
PINKBEYS-GREEN-MAIDENHEAD.



All these programs
are carried with the
Lithuanian Radio
in consequence of the
war and having the
Lithuanian radio

[illegible]

*as a percentage of total design revenue, rounded up

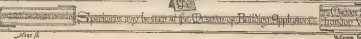
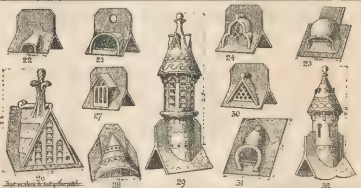
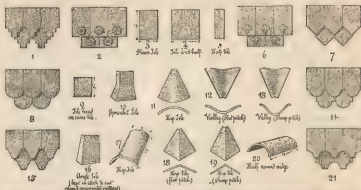
May 5

A—BRICKS, TILES, AND TERRA COTTA.

Sheet No. 8

Roof and Wall Tiles — J. K. COOPER & SONS — Bath and other Ventilation

• PATKIN'S GREEN CHALKHEAD •



A—BRICKS, TILES, AND TERRA COTTA.

Sheet No. 7.

J. K. COOPER & SON.

PURKAYS, GREEN, CHALMERS.

These (Purkays) Pots are made of very superior clay and like the (Chalmers) well known Redware etc. are impervious to water.



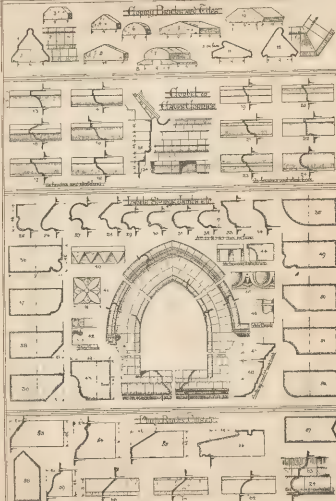
Wm. H. & J. H. H. H.

A—BRICKS, TILES, AND TERRA COTTA.

Sheet No. 8.

J. K. COOPER & SONS.

PIEDMONT, GREGG, CHADWICK & CO.



A—BRICKS, TILES, AND TERRA COTTA.

Sheet No. 5.



A—BRICKS, TILES, AND TERRA COTTA.

IMPORTANT NOTICE.

BROSELEY TILES.

IN consequence of numerous persons representing themselves as Manufacturers of the "Celebrated Broseley Roofing Tiles," we, the undersigned firms, beg to inform the public that we are the only manufacturers of these Tiles at "Broseley, Shropshire"—the seam of clay from which they are made being only found at Broseley, from which place they derive their name.

BROSELEY TILERIES Co.
(Limited).
BURTON & SONS.
COALBROOKDALE Co. (Ltd.)

DAVIS, G. & F.
DOUGHTY, JOHN.
EXLEY, W. & SONS.
HAUGHTON, R. D.

HOPLEY & DUNCAN.
JONES, W. & P.
LEGGE, G. & SON.

MAW & Co. (Limited).
MADELEY WOOD Co.
PRESTAGE & Co.

Telegraphic Address:
HAUGHTON, JACKFIELD

RICHARD D. HAUGHTON,

HOLLY GROVE PATENT TILE WORKS, JACKFIELD, BROSELEY, SHROPSHIRE.

MANUFACTURER OF

PRESSED BROSELEY ROOFING TILES, PLAIN & ORNAMENTAL,

IN RED, STRAWBERRY, BRINDLED BROWN, AND BLUE.

HIPS, VALLEYS, ANGLE TILES, RIDGE TILES, &c., &c.,

Also **SOLE MANUFACTURER** of WILKINSON IMPROVED PATENT ROOFING TILES.

THE MADELEY WOOD COMPANY,

Telegraphic Address—
"IRON, MADELEY, SALOP."

IRONBRIDGE, R.S.O., SHROPSHIRE.



Manufacturers of

BEST * BROSELEY * ROOFING * TILES.

IN RED, BRINDLED, STRAWBERRY, BROWN OR BLUE COLOURS.

Plain and Ornamental Ridge Tiles, Finials, Hip, Valley and Angle Tiles, Best White Facing Bricks, Plinths, &c., Fire Bricks, Flooring Squares in Red, Blue and Buff Colours, and all kinds of Brick-kiln Goods.

A Square of Roofing Tiles, 600 in number, weighs from 11 to 12 cwts.—the Tiles measuring 10½ x 6½.

WHEN ORDERING RIDGE, HIP, OR VALLEY TILES, THE PITCH OF THE ROOF SHOULD BE GIVEN.

Price Lists, Pattern Sheets, and full Particulars on application.

BR

A—BRICKS, TILES, AND TERRA COTTA.



ROOFING TILES.

PRESTAGE & CO., THE MILBURG TILERIES, BROSELEY, SALOP.

Manufacturers of

PLAIN & ORNAMENTAL ROOFING TILES, PRESSED HIP & VALLEY TILES, RIDGES,
FINIALS, &c., BROWN, BRINDLE, STRAWBERRY, or RED.



W. & P. JONES.

BROSELEY, SHROPSHIRE,

MANUFACTURERS OF THE



REAL BROSELEY ROOFING TILES.

PLAIN, PRESSED and ORNAMENTAL, in RED, STRAWBERRY BROWN, BRINDLED, & BLUE COLOURS.

PLAIN & ORNAMENTAL ROOFING RIDGES, GARDEN BORDER TILES, FLOORING SQUARES, &c.

Drain and Socket Pipes from 2 to 12 inches diameter. Also Sole Manufacturers of JONES' PATENT HIP, VALLEY, & ANGLE TILES

Price Lists and Patterns sent on application Please say if enquiries are made through this Advertisement

Telegraphic Address—"JONES, BROSELEY"

THE TIBBINGTON COLLIERIES & BRICKWORKS, LIMITED, TIPTON, STAFFORDSHIRE.

Manufacturers of Glazed Stoneware Sanitary Pipes, Terra Cotta Chimney Pots,

AND ALL DESCRIPTIONS OF

Vitrified Blue Bricks, Brindled Bricks, Common Red and Best Red Facing Bricks,

AGRICULTURAL DRAIN PIPES, STOURBRIDGE FIRE BRICKS, &c

Works: TIPTON, STAFFORDSHIRE. Established 1847.

A—BRICKS, TILES, AND TERRA COTTA.

GIBBS & CANNING

Manufacturers,
—•— TAMWORTH. —•—



NATURAL HISTORY MUSEUM, SOUTH KENSINGTON. A. WATERHOUSE, R.A., Architect.

The Internal and External face of this Building is entirely composed of our Terra Cotta.

OTHER EXAMPLES OF OUR WORK

Prudential Insurance Office, Holborn and Finsbury. Kensington Court Mansions—Tremont Mansions, Corporation Street, Birmingham—All Souls Church, Eastbourne—Central Technical Institute, South Kensington Sq. Margaret's Mansions, Victoria Street, Westminster. Royal Aquarium and Halls, Great Yarmouth. Birmingham Theological College—Dock Offices and Dispensary, Bristol—Gresham College, Cambridge—Victoria Works, and Capital and Counties Bank, Birmingham—Mansion for A. Waterhouse, Esq., R.A.; and many other important Buildings.

ESTIMATES GIVEN FROM ARCHITECTS' SPECIFICATIONS AND DESIGNS.

SPECIALITIES:

ARCHITECTURAL TERRA-COTTA IN BUFF AND RED.



CANE-COLOUR GLAZED SINKS.

In sizes from 15 ins. to 48 ins.



FAST OR LOOSE NOZZLES.

WHITE GLAZED BRICKS.

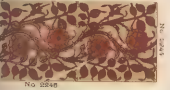
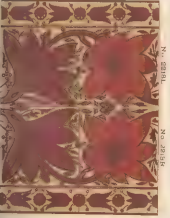
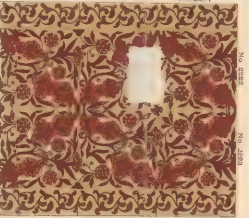
—•— Glazed Sanitary Pipes and Appliances. —•—

PRICE LISTS AND PATTERN SHEETS ON APPLICATION.

J. C. EDWARDS & RUBEN
Lustre Tiles.

Plate X

For Fireplaces, Wall Decoration, Cabinet Work, &c. &c.





TILEGRAPHIC MODELS (EDWARDS & CO.)

PLAIN & ORNAMENTAL TILES & MOSAICS FOR FLOORS, WALL & FIREPLACE DECORATION.

ENCAUSTIC AND GEOMETRICAL MOSAIC PAVEMENTS in which the patterns are formed of Plain and Encaustic Tiles and Vitreous Tesserae of various forms, sizes, and colours, suitable for Halls, Corridors, Balconies, Verandahs, Conservatories, Lavatories, &c. in Public and Private Buildings; also used for Floors in Ship's Saloons, Cabins, Painters, &c. &c.

GLAZED ENCAUSTIC AND INCISED TILES—exact reproductions of the best mediæval examples—especially suitable in connection with plain tiles for Church pavements.

ANGLO-ROMAN AND MISCHIATO MOSAICS—composed of separate Ceramic Tesserae, after the manner of the ancient examples.

GLAZED AND ENAMELLED TILES in an almost endless variety of colours Embossed, Incised, Rough Surfacéd, Plain Glazed, Majolica, Barbotine Painted Tiles, and Slabs of Stained Lustred Mosaic, &c. for Hearths, Pantries, &c. &c.

LUSTRE TILES—reproducing the most mediæval Italian and Spanish examples, &c. combining with the gorgeous effects of barbotine, pearls the most brilliant colours and designs—reproductions of the beautiful ancient Persian Tiles.

ANGLO-PERSIAN TILES in a large variety of designs and colours—reproductions of the beautiful ancient Persian Tiles.

GLAZED WHITE, IVORY, CELADON, TURQUOISE, AZURE, SEA, OLIVE, and all the usual variety of Tinted and Toned Tiles for Wall Linings, &c.

FAIENCE AND TILE FIREPLACES AND FENDER KERBS, SLABBED TILE HEARTHES, and small glazed Bricks, square and bevelled, specially suitable for Fireplace Linings, Skirting and Mosaic Tiles for niches, caps, beads, &c., in a variety of sections, and colourings.

WHITE GLAZED AND COLOURED ENAMEL BRICKS, made in the same manner as the selected clays, burnt at such a great heat that the enamel forms part of the Brick itself, and is imperishable.

PATTERNS, PRICES, AND SAMPLES ON APPLICATION.

EDWARDS RUABON

TILES · MOSAIC · ENIENCE

GLAZED · PAINT · DECORATED · ENAMELLED
· ANGLO-PERSIAN · LUSTRE · PAINTED ·
· ANTIQUE · EMBOSSED · ENCAUSTIC · MAJOLICA

WALL LININGS · FLOORS · FIREPLACES &c

WHITE GLAZED & COLOURED
ENAMELLED BRICKS
OF UNEQUALLED QUALITY

JORDY WHITE & A. L. C. T. Y. R. V. UNEQUALLED FOR GENERAL EXCELLENCE
GOOD IN COLOUR AND THE GLAZE HARD & DURABLE

RED TERRA-COTTA	BUFF	PINK
MADE FROM THE FAMOUS BED OF CLAY PEN-Y-BONT NANTYLLY. SURFACE GLAZED EITHER WHITE OR BLUE A STAIN-BURNED RED BEING THE NATURAL COLOUR OF THE CLAY WHEN BURNED VERY HARD AND NON-POROUS AND HAS A GLAZED SMOOTH SURFACE AND NEVER DEGRADES.	A TENDRILY GOOD AND SOUND MATERIAL IS BURNED HARD AND WILL KEEP ITS COLOUR AND ALWAYS LOOKS FRESH AND CLEAN.	A NEW COLOUR MADE FROM PEN-Y-BONT CLAY AND WITHOUT ANY STAIN. VERY HARD AND DURABLE

RED, BUFF, PINK & BLUE FACING BRICKS, MOULDED BRICKS, &c
MADE FROM THE SAME CLAY AS THE TERRA-COTTA, UNDOUBTEDLY THE BEST BRICKS MADE.

ORNAMENTAL RIDGE TILES FINIALS AND TERMINALS
PATENT MACHINE MADE & PRESSED

ROOFING TILES
RED · BROWN · BRINDLED OR BLUE.

RUABON · BLUE VITRIFIED GOODS.

IMPERISHABLE BLUE VITRIFIED ADAMANT PAVING CLINKERS, STABLE BRICKS &c
EVERY DESCRIPTION OF A. ONLY GLAZED SANITARY STONEWARE SINKS & LILIES
SEWERAGE & DRAINAGE PIPES

R. NORMAN SHOWS & L. WATSON'S PATENT CHANNEL DRAIN PIPES, DEAN'S PATENT TRAPS &c

TREFINANT	BUFF BRICK AND TERRA COTTA, GLAZED SANITARY STONEWARE, TESSELLATED AND ENCAUSTIC TILE	WORKS.
PEN-Y-BONT	RED BRICK AND TERRA COTTA BLUE BRICK AND ROOFING TILE	WORKS.
RHOS	WHITE AND COLOURED GLAZED AND ENAMELLED BRICK	WORKS.
PLASKYNASTON	POTTFRIES.	

Ruabon.

· THE ·
PRODUCTS
OF THESE WORKS
COMPRISE
EVERY REQUISITE
MADE IN CLAY
FOR BUILDING
AND ENGINEERING
PURPOSES.

THERE IS
but
ONE STANDARD
OF QUALITY
and that is the
HIGHEST

PATTERNS
PRICES
and
SAMPLES
ON
APPLICATION

London Office—
Argyll Chambers, 86 & 87, Strand, W.C.
R. H. JOHNSON, Agent.

Manchester Office—
7, John Dalton Street,
F. H. WALKER, Agent.

Oldham Office—
27, Oswald Street,
W. H. LESTER, Agent.

A. BRICKS, TILES AND TERRA-COTTA.

J.C. EDWARDS.

RUABON.

Red, Buff, Pink
Vitrified Blue and Salt Glazed

no 13-



no 14-



no 44a



no 49-



no 82-



no 83-



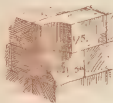
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no 89-



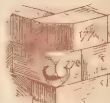
M. brick for ens 9.4 x 5.8 and all sizes to order



Slip Bricks



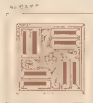
Ornamental Bricks



Slip Bricks



4 x 4 x 1



4 x 4 x 1



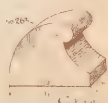
4 x 4 x 1



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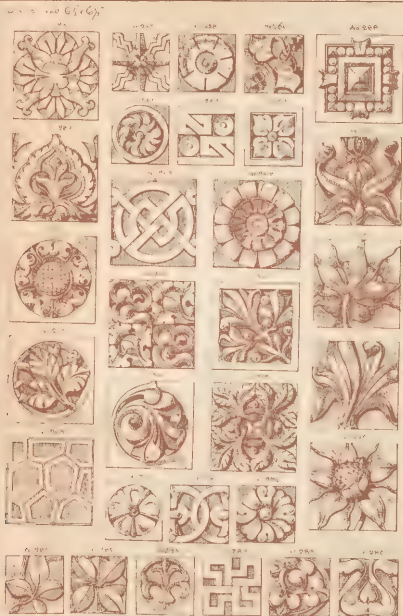


4 x 4 x 1



4 x 4 x 1

C. 2



A.—BRICKS, TILES AND TERRA-COTTA.

No 14



No 16.



No 8.



Roofing Tiles

No 74



No 75



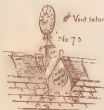
No 69



No 76



Ridge Tiles



Vent tile

No 73



No 72



Vent tile

No 77



No 78



No 79

J.C. EDWARDS &
RUABON

Roofing Tiles Ridge Tiles Finials &c.
in Red & Brindled Blue-Pink & Buff

A—BRICKS, TILES, AND TERRA COTTA.

PRIZE MEDALS AWARDED.
LONDON, 1851.



LONDON, 1862.



TWO PRIZE MEDALS.

By Royal Letters Patents for England and France.



PARIS, 1857.



MEDAL & DIPLOMA

M. H. BLANCHARD & CO.,

Bishop's Waltham Terra Cotta,
Staffordshire Blue Brick and Tile Works,
BISHOP'S WALTHAM, HANTS.

THE RED FACING AND MOULDED BRICKS are of a Superior Quality, being close in texture and of good colour, well made and properly fired, and have been largely used by many of the leading Architects of the day, and we take the opportunity of mentioning a few of the Buildings where they have been extensively used—

THE PARK LANE MANSIONS, W.
UPPER BERKLEY STREET MANSIONS, W.
ST. PAUL'S SCHOOLS, KENSINGTON, W.
ALEXANDRA HOUSE, or STUDENTS' HOME, near ALBERT HALL, W.
CAREY STREET IMPROVEMENTS, LINCOLN'S INN, W.C.
HIGH SCHOOL FOR GIRLS, FITZ JOHN AVENUE, HAMPSTEAD.
SIR RD. CARR GLYN'S MANSION AT WIMBORNE.
THE RIGHT HON. EARL NORTHESK'S NEW MANSION, LONGWOOD, HANTS.
CRAWLEY COURTS MANSIONS, HANTS, and
MANY RESIDENCES IN LONDON AND THE PROVINCES.

The **MACHINE WIRE CUT BRICKS** are made to work with the FACERS, and are celebrated for their hardness and adamant character, being non-absorbent and capable of sustaining heavy weights, and have been tested by Messrs. KIRKALDY, and bore a pressure of 230 Tons. Many Millions have been supplied for Railways, Sewers, General Buildings, and such like purposes.

MANUFACTURERS OF

M. H. BLANCHARD'S PATENT IMPROVED BRICKS,
FOR WELLS, MANHOLES, AND SUCH LIKE PURPOSES.

Rates, Prices, and all information forwarded upon application to

M. H. BLANCHARD & CO..

(Successors to COADES. ESTABLISHED 1769.)

MANUFACTURERS to the ROYAL FAMILY and SEVERAL DEPARTMENTS of BRITISH and FOREIGN GOVERNMENTS,
BISHOP'S WALTHAM, HANTS.

Telegraphic Address: "BLANCHARD, BISHOP'S WALTHAM."

CONTRACTORS' COMPENDIUM

A—BRICKS, TILES, AND TERRA COTTA.



M. H. BLANCHARD & CO.,

Bishop's Waltham Terra Cotta,
Staffordshire Blue Brick and Tile Works,
BISHOP'S WALTHAM, HANTS.



H. BLANCHARD & CO. (successors to COADES), established 1769, wish respectfully to make known to the Nobility, Gentry, Architects, Engineers, Builders, and others, that they have given up their London Show Rooms at Blackfriars Road, LONDON, S.E. (where their TERRA COTTA business has been carried on by them for the last Forty years), and have concentrated their business upon their more extensive Freehold Works at Bishop's Waltham, HANTS, where they possess some of the finest beds of CLAYS known in the United Kingdom for the manufacture of TERRA COTTA, RED, and STAFFORDSHIRE BLUE GOODS of every kind, which, together with their great facilities of manufacture, and the advantages of railway accommodation, will enable them to submit goods of a first-class manufacture at lower prices when compared with goods of a similar kind.

The whole of the Goods that are being produced are by first-class Workmen in each department.

The ROOFING TILES, which are equal to the Broseley Best Tiles, or any made in the Midland Counties, have, by reason of their approved colour, lightness, hardness, and durability, gained general favour, and are frequently specified.

The PAVING QUARRIES AND TILES are of a superior quality to any of a similar class. The LIME VITRIFIED GOODS are equal to the best goods made in Staffordshire, and having lately increased our Machinery, and carried out many improvements and facilities for producing Goods of First-class Quality, which will be found to be unequalled in Price when compared with Goods of a similar manufacture.

The following advantages are offered to purchasers buying at these Works:—that the Goods can be loaded direct into trucks at the Works, thereby saving expense and damage done in loading and unloading, and that we have made special arrangements with the L. & S. W. Railway Company for low rates for Conveyance of our Goods to any station on their line. These advantages will be found worthy of Special Attention.

All Orders that may be entrusted to us will receive careful and prompt attention; and for further information please address as above.

M. H. BLANCHARD & CO.

(Successors to COADES. ESTABLISHED 1769).

MANUFACTURERS to the ROYAL FAMILY and the SEVERAL DEPARTMENTS of BRITISH and FOREIGN GOVERNMENTS,

BISHOP'S WALTHAM, HANTS.

Telegraphic Address—"BLANCHARD, BISHOP'S WALTHAM."

A—BRICKS, TILES, AND TERRA COTTA.

Portland Cement, Plaster, Keene's & Parian Cements, Grey Stone and Blue Lias Lime.

F. ROSHER & Co.,

Lime, Cement, Brick, Tile & Slate Merchants.

LONDON WHARVES—

BLACKFRIARS (Head Office).—Old Jamaica Wharf, Upper Ground Street, S.E. Telephone No. 4763.
CHELSEA.—King's Road (corner of Church St.), & Oak Wharf, Lot's Road, S.W. Telephone No. 8598.
KINGSLAND.—Kingsland Basin, Kingsland Road, E. Telephone No. 848.
LIMEHOUSE.—Lime Kiln Hill, Three Colt Street, E. Telephone No. 5077.

WORKS—

CROWN QUAY CEMENT WORKS.—Sittingbourne, Kent.

A large Stock of all kinds of Building Materials (as under) kept at the Wharves.

ALL ORDERS PROMPTLY EXECUTED FROM WHARF OR DIRECT FROM WORKS.

GREY STONE, CHALK, FLARE & BLUE LIAS LIME.

PORTLAND ROMAN, KEENE'S AND PARIAN CEMENTS, PLASTER (COARSE AND FINE).

COWLEY AND KENT BRICKS, by Cart or Barge.

WHITE AND RED SUFFOLK FACING BRICKS.

MOULDED BRICKS IN GREAT VARIETY.

Wall Coping Bricks of every description.

Yellow and Pale Malm Cutters, Seconds, Paviers; Blue Staffordshire Bricks.

White, Black and Red Rubbers.

Staffordshire Ornamental Paving Tiles, in Red, Blue and Buff

Terre-Metallu Grooved Stable Bricks, Channel Bricks and Clinkers; and Adamantine Clinkers.

ALSO

ENCAUSTIC PAVEMENTS OF ENRICHED DESIGNS.

ORNAMENTAL ROOFING AND RIDGE TILES, Blue or Red, with Crestings in great variety.

Dutch & English White Glazed Tiles, for Wall Linings of Baths, Larders, Dairies, Shops, Kitchen Ranges, Fireplaces, &c.

Welsh, Newcastle and Stourbridge Fire Bricks, Lumps and Tiles, of every description and size.

Terra-Cotta Chimney Tops in great variety of design.



GARDEN VASES
AND
BALUSTADING.



TRUSSES, TERMINALS,
IN
ARTIFICIAL STONE.

Also GARDEN EDGINGS, FOUNTAINS, &c.

Asphalt Roofing and Sarking Felt. Hair, Laths, Whiting, Sand, Ballast, and other Building Materials.

PHILLIPS' PATENT LOCK-JAW ROOFING TILE.



Illustrated Price Lists on Application.

SPECIAL QUOTATIONS FOR TRUCK LOADS OR FREIGHTS TO ANY RAILWAY STATION OR PORT IN THE KINGDOM.

Telegraphic Address—"ROSDER, LONDON."

[See Page 123]

CONTRACTORS COMPENDIUM.

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93

A—BRICKS, TILES, AND TERRA COTTA.

Telegrams to "PEAKE, TUNSTALL, STAFF."

Thomas Peake, "THE TILERIES," TUNSTALL, STAFFORDSHIRE.

Prize Medals

London, 1851. ⦿ Paris, 1867. ⦿ Philadelphia, 1876.

MANUFACTURER OF

ROOFING TILES, Plain & Ornamental (Trade Mark "Perfecta")
RIDGE TILES in great variety, Blue and Red.
FINIALS for Gables and Hips, more than 100 designs.
PRESSED PAVING TILES, Blue, Red and Buff, ordinary
Quality, at from 1/4 per yard, super.
PRESSED PAVING TILES, Blue, Red and Buff, medium
Quality, at from 1/4 per yard, super.
PAVING TILES, Blue, Red, Buff and Black, of superior
quality, for Churches, Schools, Conservatories, &c.
(W. Brand) at from 2/9 per yard, super.
PAVING TILES, Best Tessellated, Plain Colours, at from
5/- per yard, super.
PAVING TILES, 2nd quality, Tessellated, Plain Colours, at
from 3/- per yard, super.

GARDEN BORDER TILES, Imperishable Blue Terra Metalle.
RED FACING and STRING COURSE BRICKS.
BLUE FACING and STRING COURSE BRICKS.
BLUE ACID-RESISTING BRICKS for Chemical Works and
Glaucous Towers
BLUE WALL COPING BRICKS.
BLUE and BUFF ADAMANTINE CLINKERS.
AIR or VENTILATING BRICKS.
MALT KILN TILES.
MANGER BRICKS and SOUGH GRATES.
FIRE BRICKS, LUMPS, QUARRIES, &c.
HARCOURT THOMSON'S PATENT VENTILATING RIDGES.
TERRA-COTTA PANELS & MURAL TILES in great variety.



LARGE and well assorted Stocks of the above Goods are always on hand, also White Glazed Wall Tiles, Printed
Tiles for Hearths, &c., Gane and White Hoppers and Traps, Closet Pans, Glazed Showers, Socket Pipes,
Gullies, Syphons, and Glazed Kitchen Sinks, Buff and Red Chimney Pots, &c., &c.
These Brick and Tile Works are the most extensive in North Staffordshire. Steam Brickmaking and
Patent Tile Making Machinery have recently been added to the plant, thus materially increasing the pro-
duction of this class of goods.

Being situated on the Trent and Mersey Canal, and having private Railway Sliding into the Works from the North
Stafford Main Line, the facilities for the prompt despatch of Goods are exceptionally good.

The designs following are a few taken from the Pattern Book, which will be sent, with complete Price List,
on application.

A.—BRICKS, TILES AND TERRA-COTTA.

Thomas Peake "The Tileries", Tunstall.

Ridge Tiles & Finials



A.—BRICKS, TILES AND TERRA-COTTA.

Thomas Peake "The Tileries", Tunstall.

Roofing Tiles Blue, Red & Brown or Broseley



Ridge Tiles Blue, Red & Brown or Broseley



A.—BRICKS, TILES AND TERRA-COTTA.

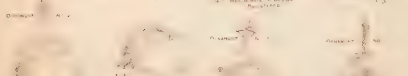
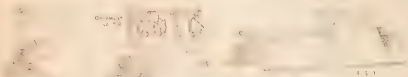
Thomas Peck "The Tileries". Tunstall.

Ridge Tiles & Ventilators

Design No. 52

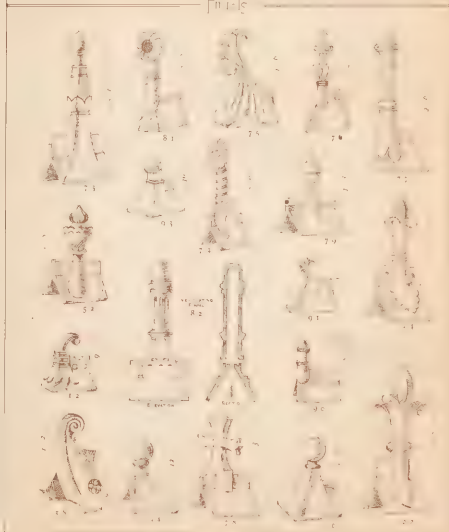
BUTTERFIELD'S PATTERNS

Design No. 55



Thomas Peake "The Tileries", Tunstall.

Figures



WHEATLY & Co

TILE WORKS AND HEAD OFFICE

SPRINGFIELD TILERIES

NEWCASTLE

STAFFORDSHIRE

COLLIERY AND BRICK AND TILE WORKS

SANDBACH COLLIERY

COBRIDGE, N. BURSLEM

STAFFORDSHIRE

The Works are situated within Staffordshire in pretty celebrated fertile fine marl deposits containing parcels of iron which fluxing during the process of firing gives that impervious body so well known as Staff redware BLUE. The RED goods are made from marls specially suited for the purpose and are of a similar close and dense body as the BLUE and almost as impervious to wet.

The BUFF goods are of selected fire clay and caru covered marls and are of greater durability than most of the so called BUFF goods offered to the public.

The paving tiles will be found of special marl being laid in shape good in colour and of great durability. The roofing tiles can be supplied in BLUE RED or any shade of BROWN and will be found extremely durable, resisting all influences of weather and the chemical action of the atmosphere in large towns and manufacturing districts.

Architects' special designs and orders will be attended to and carried out with reasonable despatch.

ROOFING TILES			RIDGE TILE			FAST TOP RIDGES			FINIALS		
No. 301.	3 1/2"	per 1000	No. 60. 6 WINGS	3 1/2" each		No. 100	9 1/2" each		No. 202 7/8" each	No. 202 1/2" each	No. 224 9/16" each
301	3 1/2"	11	60	11	11	103	8	11	202 7/8"	202 1/2"	224 9/16"
302	3 1/2"	11	60	11	11	106	8	11	202 7/8"	202 1/2"	224 9/16"
303	3 1/2"	11	60	11	11	109	8	11	202 7/8"	202 1/2"	224 9/16"
304	3 1/2"	11	60	11	11	112	8	11	202 7/8"	202 1/2"	224 9/16"
305	3 1/2"	11	60	11	11	115	8	11	202 7/8"	202 1/2"	224 9/16"
306	3 1/2"	11	60	11	11	118	8	11	202 7/8"	202 1/2"	224 9/16"
307	3 1/2"	11	60	11	11	121	8	11	202 7/8"	202 1/2"	224 9/16"
308	3 1/2"	11	60	11	11	124	8	11	202 7/8"	202 1/2"	224 9/16"
309	3 1/2"	11	60	11	11	127	8	11	202 7/8"	202 1/2"	224 9/16"
310	3 1/2"	11	60	11	11	130	8	11	202 7/8"	202 1/2"	224 9/16"
311	3 1/2"	11	60	11	11	133	8	11	202 7/8"	202 1/2"	224 9/16"
312	3 1/2"	11	60	11	11	136	8	11	202 7/8"	202 1/2"	224 9/16"
313	3 1/2"	11	60	11	11	139	8	11	202 7/8"	202 1/2"	224 9/16"
314	3 1/2"	11	60	11	11	142	8	11	202 7/8"	202 1/2"	224 9/16"
315	3 1/2"	11	60	11	11	145	8	11	202 7/8"	202 1/2"	224 9/16"
316	3 1/2"	11	60	11	11	148	8	11	202 7/8"	202 1/2"	224 9/16"
317	3 1/2"	11	60	11	11	151	8	11	202 7/8"	202 1/2"	224 9/16"
318	3 1/2"	11	60	11	11	154	8	11	202 7/8"	202 1/2"	224 9/16"
319	3 1/2"	11	60	11	11	157	8	11	202 7/8"	202 1/2"	224 9/16"
320	3 1/2"	11	60	11	11	160	8	11	202 7/8"	202 1/2"	224 9/16"
321	3 1/2"	11	60	11	11	163	8	11	202 7/8"	202 1/2"	224 9/16"
322	3 1/2"	11	60	11	11	166	8	11	202 7/8"	202 1/2"	224 9/16"
323	3 1/2"	11	60	11	11	169	8	11	202 7/8"	202 1/2"	224 9/16"
324	3 1/2"	11	60	11	11	172	8	11	202 7/8"	202 1/2"	224 9/16"
325	3 1/2"	11	60	11	11	175	8	11	202 7/8"	202 1/2"	224 9/16"
326	3 1/2"	11	60	11	11	178	8	11	202 7/8"	202 1/2"	224 9/16"
327	3 1/2"	11	60	11	11	181	8	11	202 7/8"	202 1/2"	224 9/16"
328	3 1/2"	11	60	11	11	184	8	11	202 7/8"	202 1/2"	224 9/16"
329	3 1/2"	11	60	11	11	187	8	11	202 7/8"	202 1/2"	224 9/16"
330	3 1/2"	11	60	11	11	190	8	11	202 7/8"	202 1/2"	224 9/16"
331	3 1/2"	11	60	11	11	193	8	11	202 7/8"	202 1/2"	224 9/16"
332	3 1/2"	11	60	11	11	196	8	11	202 7/8"	202 1/2"	224 9/16"
333	3 1/2"	11	60	11	11	199	8	11	202 7/8"	202 1/2"	224 9/16"
334	3 1/2"	11	60	11	11	202	8	11	202 7/8"	202 1/2"	224 9/16"
335	3 1/2"	11	60	11	11	205	8	11	202 7/8"	202 1/2"	224 9/16"
336	3 1/2"	11	60	11	11	208	8	11	202 7/8"	202 1/2"	224 9/16"
337	3 1/2"	11	60	11	11	211	8	11	202 7/8"	202 1/2"	224 9/16"
338	3 1/2"	11	60	11	11	214	8	11	202 7/8"	202 1/2"	224 9/16"
339	3 1/2"	11	60	11	11	217	8	11	202 7/8"	202 1/2"	224 9/16"
340	3 1/2"	11	60	11	11	220	8	11	202 7/8"	202 1/2"	224 9/16"
341	3 1/2"	11	60	11	11	223	8	11	202 7/8"	202 1/2"	224 9/16"
342	3 1/2"	11	60	11	11	226	8	11	202 7/8"	202 1/2"	224 9/16"
343	3 1/2"	11	60	11	11	229	8	11	202 7/8"	202 1/2"	224 9/16"
344	3 1/2"	11	60	11	11	232	8	11	202 7/8"	202 1/2"	224 9/16"
345	3 1/2"	11	60	11	11	235	8	11	202 7/8"	202 1/2"	224 9/16"
346	3 1/2"	11	60	11	11	238	8	11	202 7/8"	202 1/2"	224 9/16"
347	3 1/2"	11	60	11	11	241	8	11	202 7/8"	202 1/2"	224 9/16"
348	3 1/2"	11	60	11	11	244	8	11	202 7/8"	202 1/2"	224 9/16"
349	3 1/2"	11	60	11	11	247	8	11	202 7/8"	202 1/2"	224 9/16"
350	3 1/2"	11	60	11	11	250	8	11	202 7/8"	202 1/2"	224 9/16"
351	3 1/2"	11	60	11	11	253	8	11	202 7/8"	202 1/2"	224 9/16"
352	3 1/2"	11	60	11	11	256	8	11	202 7/8"	202 1/2"	224 9/16"
353	3 1/2"	11	60	11	11	259	8	11	202 7/8"	202 1/2"	224 9/16"
354	3 1/2"	11	60	11	11	262	8	11	202 7/8"	202 1/2"	224 9/16"
355	3 1/2"	11	60	11	11	265	8	11	202 7/8"	202 1/2"	224 9/16"
356	3 1/2"	11	60	11	11	268	8	11	202 7/8"	202 1/2"	224 9/16"
357	3 1/2"	11	60	11	11	271	8	11	202 7/8"	202 1/2"	224 9/16"
358	3 1/2"	11	60	11	11	274	8	11	202 7/8"	202 1/2"	224 9/16"
359	3 1/2"	11	60	11	11	277	8	11	202 7/8"	202 1/2"	224 9/16"
360	3 1/2"	11	60	11	11	280	8	11	202 7/8"	202 1/2"	224 9/16"
361	3 1/2"	11	60	11	11	283	8	11	202 7/8"	202 1/2"	224 9/16"
362	3 1/2"	11	60	11	11	286	8	11	202 7/8"	202 1/2"	224 9/16"
363	3 1/2"	11	60	11	11	289	8	11	202 7/8"	202 1/2"	224 9/16"
364	3 1/2"	11	60	11	11	292	8	11	202 7/8"	202 1/2"	224 9/16"
365	3 1/2"	11	60	11	11	295	8	11	202 7/8"	202 1/2"	224 9/16"
366	3 1/2"	11	60	11	11	298	8	11	202 7/8"	202 1/2"	224 9/16"
367	3 1/2"	11	60	11	11	301	8	11	202 7/8"	202 1/2"	224 9/16"
368	3 1/2"	11	60	11	11	304	8	11	202 7/8"	202 1/2"	224 9/16"
369	3 1/2"	11	60	11	11	307	8	11	202 7/8"	202 1/2"	224 9/16"
370	3 1/2"	11	60	11	11	310	8	11	202 7/8"	202 1/2"	224 9/16"
371	3 1/2"	11	60	11	11	313	8	11	202 7/8"	202 1/2"	224 9/16"
372	3 1/2"	11	60	11	11	316	8	11	202 7/8"	202 1/2"	224 9/16"
373	3 1/2"	11	60	11	11	319	8	11	202 7/8"	202 1/2"	224 9/16"
374	3 1/2"	11	60	11	11	322	8	11	202 7/8"	202 1/2"	224 9/16"
375	3 1/2"	11	60	11	11	325	8	11	202 7/8"	202 1/2"	224 9/16"
376	3 1/2"	11	60	11	11	328	8	11	202 7/8"	202 1/2"	224 9/16"
377	3 1/2"	11	60	11	11	331	8	11	202 7/8"	202 1/2"	224 9/16"
378	3 1/2"	11	60	11	11	334	8	11	202 7/8"	202 1/2"	224 9/16"
379	3 1/2"	11	60	11	11	337	8	11	202 7/8"	202 1/2"	224 9/16"
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381	3 1/2"	11	60	11	11	343	8	11	202 7/8"	202 1/2"	224 9/16"
382	3 1/2"	11	60	11	11	346	8	11	202 7/8"	202 1/2"	224 9/16"
383	3 1/2"	11	60	11	11	349	8	11	202 7/8"	202 1/2"	224 9/16"
384	3 1/2"	11	60	11	11	352	8	11	202 7/8"	202 1/2"	224 9/16"
385	3 1/2"	11	60	11	11	355	8	11	202 7/8"	202 1/2"	224 9/16"
386	3 1/2"	11	60	11	11	358	8	11	202 7/8"	202 1/2"	224 9/16"
387	3 1/2"	11	60	11	11	361	8	11	202 7/8"	202 1/2"	224 9/16"
388	3 1/2"	11	60	11	11	364	8	11	202 7/8"	202 1/2"	224 9/16"
389	3 1/2"	11	60	11	11	367	8	11	202 7/8"	202 1/2"	224 9/16"
390	3 1/2"	11	60	11	11	370	8	11	202 7/8"	202 1/2"	224 9/16"
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392	3 1/2"	11	60	11	11	376	8	11	202 7/8"	202 1/2"	224 9/16"
393	3 1/2"	11	60	11	11	379	8	11	202 7/8"	202 1/2"	224 9/16"
394	3 1/2"	11	60	11	11	382	8	11	202 7/8"	202 1/2"	224 9/16"
395	3 1/2"	11	60	11	11	385	8	11	202 7/8"	202 1/2"	224 9/16"
396	3 1/2"	11	60	11	11	388	8	11	202 7/8"	202 1/2"	224 9/16"
397	3 1/2"	11	60	11	11	391	8	11	202 7/8"	202 1/2"	224 9/16"
398	3 1/2"	11	60	11	11	394	8	11	202 7/8"	202 1/2"	224 9/16"
399	3 1/2"	11	60	11	11	397	8	11	202 7/8"	202 1/2"	224 9/16"
400	3 1/2"	11	60	11	11	400	8	11	202 7/8"	202 1/2"	224 9/16"





FLOORING TILES

— PRESSED ORDINARY QUALITY —

DESCRIPTION	QUANTITIES	PRICE	PER 1000
-------------	------------	-------	----------

A- BRICKS, TILES,
& TERRA COTTA.

WHEATLY & CO.

(SPRINGFIELD TILERIES, NEWCASTLE, STAFFS.,
SANDBACH COLLIERY, COBRIDGE, N. BURSLEM.)

ALL GOODS ARE MADE IN BLUE RED BROWN OR BUFF COLOURS

ROOFING TILES



301



302



303



304



305
TILE AND HALF

311

EAVE TILE

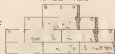


310
HIP TILE



312

HALL TILE



317

VENTILATING TILE



318



306

GABLE TILE



SMALL 306
LARGE 306

FINIALS

VALLEY TILE



312



202



224



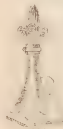
212



228



204



205



223



216



254



65



67



68



51



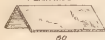
258

AIR BRICKS

SCALE 9/16 INCH = ONE FOOT

ALL GOODS ARE MADE IN BLUE RED BROWN OR BUFF COLOURS

PLAIN RIDGE



60

RIDGE TILES

GRAPED RIDGE



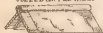
61

ROLLED RIDGE



62

ROLLED GRAPED RIDGE



63

QUORN FOR TOP OF HIP



66

QUORN FOR BOTTOM OF HIP



67

DIAGRAM OF PITCH OF ROOFS.

1 IN 6 HIP FOR COMMON PITCH

8 1/2 IN 12 FOR SQUARE PITCH

15° SLATE PITCH

100° TILE PITCH

80° SQUARE PITCH

15° GOthic PITCH

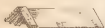
80° SHARP PITCH



69



81



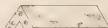
82



83



84



85



8



86



19

17



8

FAST TOP RIDGES



109



113



101



108



112



115



117



122



127



129

SCALE 3/4 INCH = ONE FOOT.

A- BRICKS, TILES,
& TERRA COTTA.

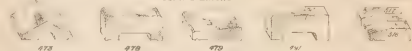
WHEATLY & CO (SPRINGFIELD TILERIES, NEWCASTLE, STAFFS.,
(SANDBACH COLLIERY, COBRIDGE, N-BURSLER.

ALL GOODS ARE MADE IN BLUE RED BROWN OR BUFF COLOURS

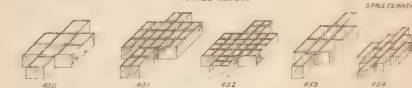
BRICKS



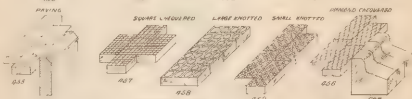
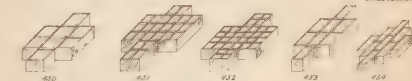
COPING BRICKS



STABLE BRICKS



STALL ENDERS



GEORGE WOOLLISCROFT & SON.

POSTAL ADDRESS.

HANLEY, ENGLAND.

TELEGRAMS. "WOOLLISCROFT, H.N.L.F."

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ALL DESCRIPTIONS OF

Blue & Red PAVINGS for STREET FOOT-PATHS.

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STABLE PAVINGS. Blue & Red BUILDING & FACING BRICKS.

Red, Blue & Buff, STAFFORDSHIRE QUARRIES.

Red, Blue, Broseley, Plain & Ornamental ROOFING TILES.

Made by our Patent Process, and unequalled by any others in density and hardness.
Architects, Proprietors and Builders are invited to apply for Samples.

Also Ornamental RIDGE, of various patterns HIP, VALLEY & GARDEN EDGE TILES.

"ETRURIA HYDRAULIC" TILES,

for ROOFS, FLOORS and WALLS.

Suitable for Church Aisles, Corridors to Schools and Public Buildings, Verandahs, Green-houses,
Servants' Halls, Kitchens, Farm-houses, &c., &c.

Largely specified by HOME & COLONIAL ARCHITECTS.



TESELATED and ENCAUSTIC TILES,

For Chancels, Entrance Halls, Conservatories, &c., &c.

GLAZED, ENAMELLED, EMBOSSED, PRINTED & ART TILES,

For Hearths, Fire Places and Wall Linings.

MOULDED SKIRTING (Suitable with or without a Dado above) & CAPPING TILES.

TERRA COTTA for any kind of ORNAMENTATION.

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HANLEY, ENGLAND.

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Ridge Roofing and Garden Edge Tiles,
HIP & VALLEY TILES, STAFFORDSHIRE QUARRIES, WALL & PLATFORM COPINGS, &c.

LEADING SPECIALITY—

“ETRURIA-HYDRAULIC” * TILES.

These Tiles are made by powerful machinery, and warranted sound, straight, and fast coloured.

ROOFING TILES of this quality are superior to any others in the market. Reference is needed to many Public Buildings in England and Ireland.

FLOOR TILES. The increasing sale in this branch is abundant proof of their popularity, and that they supply the long-felt want for a superior, though cheap Tile for Church Aisles, Schools, Verandahs, Greenhouses, Servants' Halls, Kitchens, &c., &c.

GLAZED WALL TILES. These are specially suitable for Schools, Public Buildings, Railway Stations, Stables, &c., where a coloured Tile is desirable in preference to White Glazed.

GLAZED SKIRTING TILES are produced at a very reasonable price, and already largely used instead of wood, which constantly wants painting, and is always liable to rot and decay.

In order to meet the extensive demands of Home, Colonial, and Foreign Buyers, we have lately made considerable additions to our Machinery, which, while increasing the production, will at the same time improve the texture.

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GEORGE WOOLLISCROFT & SON, HANLEY, ENGLAND.

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For Chancels, Entrance Halls, Vestibules, Conservatories, &c.;
where beauty of design and richness of colouring is desirable.

These we can supply in great variety, and at most reasonable prices, consistent with first-class quality.

GLAZED, DECORATED, ENAMELLED AND EMBOSSED TILES,

FOR HEARTHES, WALLS, DADOS, &c.

As a Specimen of our productions in this class we refer our readers to the HEARTH TILE PATTERN SHEET, published with this issue. See Plate, No. 28.

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"KENSINGTON" DISCHARGE TRAP, GREASE AND SINK TRAP.



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"THE DELPH" BRICK & FIRE-CLAY WORKS,

RUABON, NORTH WALES,

MANUFACTURER OF

GLAZED STONEWARE SEWERAGE PIPES,

BROWN SALT-GLAZED FACING BRICKS,

BUFF AND WHITE MACHINE-PRESSED BRICKS,

COMMON BRICKS,

FIRE BRICKS, FIRE TILES, AND FIRE CLAY GOODS OF ALL DESCRIPTIONS,

Butt Jointed Pipes, Flue Pipes, Agricultural Drain Pipes,

TERRA COTTA CHIMNEY TOPS, &c., &c., &c.

COOPER & SON,

TRENT VALE TILERIES, STOKE-ON-TRENT.

Manufacturers of

RED, BLUE, AND BUFF FLOORING TILES,

RED, BLUE, AND BROWN ROOFING & RIDGE TILES, &c.

BLUE PAVING. STABLE AND FRONT BRICKS.

NOTES REFERRING TO GOODS IN THIS SECTION.

THE COMPLETE CATALOGUE.

Section B. CARPENTRY AND JOINERY.

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B—CARPENTRY AND JOINERY.

NOTES REFERRING TO GOODS IN THIS SECTION

B—CARPENTRY AND JOINERY.

CARTER & AYNESLEY

54, BISHOPSGATE ST WITHOUT
LONDON.
E.C.



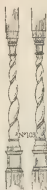
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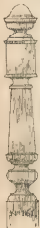


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PRICES GIVEN ON APPLICATION
SPECIAL QUOTATIONS FOR LARGE QUANTITIES



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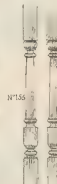
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ORDERS EXECUTED WITHIN 14 DAYS

FOR FURTHER INFORMATION SEE LARGE CATALOGUE

SQUARE CUT
BALUSTERS & NEWELS.

Scales 12

12 Feet

B-CARPENTRY AND JOINERY.

TELEPHONE 4761]

THE

Telegrams—"DOWELLED, LONDON."

ACME WOOD FLOORING COMPANY

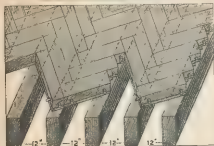
LIMITED.

MANUFACTURERS OF W. DUFFY'S PATENT

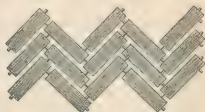
"IMMOVABLE ACME" WOOD BLOCK FLOORING.



Finished Block for Joists.



View describing the system laid direct on joists, making a splendid and reliable floor.



Surface View with open joints showing the method of Dowelling.



The system can be laid on rough boarding or on worn out boarded flooring.

The wear sustained in a Public Establishment like the *Gaiety Buffet, Strand*, where it is laid, is the very highest recommendation; here it is truly tested in every possible way by heat, wet, heavy and constant traffic, yet its appearance to-day is quite as good as the day it was laid, and we respectfully beg Architects' special attention to this Floor.

The preparation of the wood is a most careful operation, both as regards seasoning and manufacture. By the well-explained system of dowelling, each block is fastened to the neighbouring blocks, and by the perfect security to foundation, looseness is an impossibility.

SPECIALLY ADAPTED FOR

Hospitals
Banks
Hotels
Stores

Warehouses
Colleges
Schools
Churches

Railway Stations
Residences
Basements
Bath Rooms

Kitchens
Dancing Academies
Restaurants
Billiard Rooms.&c.&c.

Estimates, &c., on Application to the Sole Proprietors and Manufacturers—

THE ACME WOOD FLOORING COMPANY, LTD.

CHIEF OFFICES & WORKS—

GLASSHOUSE STREET and VAUXHALL WALK, LAMBETH, S.E.

111

B-CARPENTRY AND JOINERY.

TELEPHONE 4781.]

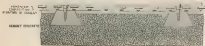
Telegrams—"DOWELLED, LONDON"

W. DUFFY'S
PATENT IMPROVED AND PERFECTLY
"IMMOVABLE ACME"
SYSTEM OF
WOOD BLOCK FLOORING

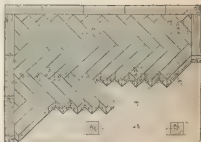
Which has been approved by leading Architects at home and abroad, and universally adopted, and received the Highest Award for Flooring at all the most important Exhibitions.

7 GOLD MEDALS,
3 SILVER MEDALS,
2 BRONZE MEDALS,

AND
Certificate of the Sanitary Institute of Great Britain.



Long Section of W. Duffy's Patent "Immovable Acme" system of Wood Block Flooring



Surface View, the position of bonding blocks (marked A) to which the superposed flooring is secured
Side View, showing method of Dowelling.

For full Particulars and Prices (see Page 113) and on application to

THE ACME WOOD FLOORING COMPANY,
LIMITED.

CHIEF OFFICES & WORKS—

GLASSHOUSE ST. & VAUXHALL WALK, LAMBETH, S.E.

B—CARPENTRY AND JOINERY.

THE ACME WOOD FLOORING CO., LTD.,

Telephone 4767.

Manufacturers of

Telegrams—
"DOWELLED, LONDON."

The "Immovable Acme" Wood Block Flooring.

INDESTRUCTIBLE, PERFECTLY SOLID, NOISELESS, & WARM.

The most Efficient and Economical Floor in the Market.

Possessing complete Sanitary Advantages of Imperviousness to Vermin, Dirt, Damp, Draughts, &c.

NETT PRICE LIST

FOR

W. DUFFY'S Gold Medal "Immovable Acme" Wood Block Flooring.

The Flooring is prepared from First-class Timber, and thoroughly Seasoned by a special process, in two qualities, "C" and "D," as follows:—

"C,"—Prepared from best Yellow Deal, longitudinal V grooves, as this additional bonding key  Pitch Pine, Oak, &c., thoroughly Seasoned, planed four sides with to receive adhesive and preservative composition, forming an

"D,"—Prepared and laid as "C," with blocks specially selected, free of all defects

PRICES PER YARD SUPERFICIAL.

	1 in.*		1½ in.*		1½ in.*		2 in.*	
	C Quality.	D Quality.	C Quality.	D Quality.	C Quality.	D Quality.	C Quality.	D Quality.
Yellow Deal...	5 3	5 9	6 0	6 6	6 6	7 0	7 6	8 0
P. Pine	7 0	7 6	8 0	8 6	8 6	9 0	9 0	10 0
Oak	10 6	11 6	11 0	12 6	12 6	13 0	16 0	17 9

*This is the thickness of the Blocks before they are prepared, finishing about ½ in. less than named in each case.

Straight cutting to waste, all sizes and qualities, per foot run Deal. P. Pine. Oak.
Circular 3d. 4d. 6d.
6d. 8d. 1s. 6d.

BONDING BLOCKS, for inserting in the concrete foundation, when being laid are supplied free of charge and have to be put in by, and at the expense of, the Builder. The top of bonding blocks when inserted, must be on a level with the cement floating. These blocks act well for screeding levels.

These Prices are for laying and cleaning off the work complete, exclusive of concrete, which must be floated to a **PERFECT LEVEL** in **PORTLAND CEMENT** and allowed sufficient time to become **QUITE HARD** and **DRY** before our flooring can be laid.

TERMS.—Payment as the work proceeds.

The prices named are for London, and a radius of 10 miles from Charing Cross. For places beyond, return railway fares for two men, time travelling, and estimated carriage of materials must be added.

Special quotations for all kinds of **HARDWOOD** on application, stating quantity required, with rough tracing, if possible.

Sole Proprietors and Manufacturers—

THE ACME WOOD FLOORING CO., LTD.

Chief Offices & Works—GLASSHOUSE STREET & VAUXHALL WALK, LAMBETH, S.E.

113

B-CARPENTRY AND JOINERY.

TEN GOLD MEDALS AND HIGHEST AWARDS.

PARQUET AND HARD WOOD JOINERY, MANUFACTURED BY

Telegraphic Address:
"MOSAICIST,
LONDON"

JOS. F. EBNER, Telegraphic Address:
"MOSAICIST,
LONDON"

150, OLD STREET, ST. LUKE'S, LONDON, E.C.

2 INCH AND 1/2 INCH
Solid Parquet

ALWAYS IN STOCK

DESIGNS
and
ESTIMATES
ON
APPLICATION.



Parquet de Luxe

MADE TO ORDER

DESIGNS
and
ESTIMATES
ON
APPLICATION.

PARQUET ON PATENT HYDROFUGE SYSTEM FOR LAYING ON CONCRETE ALWAYS
IN STOCK. FOR DESCRIPTION SEE BELOW.

TEN GOLD MEDALS AND HIGHEST AWARDS.

EBNER'S PATENT HYDROFUGE SYSTEM FOR FLOORS.

FIREPROOF, DAMP-PROOF, NOISELESS. FREE FROM DRAUGHT, AND PROOF AGAINST RAVAGES OF DRY ROT,
VERMIN, OR DISEASE GERMS



By this System a PERFECT and DIRECT KEY is obtained between the WOOD BLOCKS and the CEMENT FOUNDATION, by means of a hard setting BITUMEN, which FORMS A DAMP COURSE. The Bitumen is applied hot in a fluid state, and sets hard.

The metal Channels shown in black are pressed into the cement forcing whilst plastic. The KEY FORMS ITSELF MECHANICALLY, and therefore can neither be FORGOTTEN OR SCAMPED. UPON COMPARISON this System will be found to be the ONLY ONE giving an ABSOLUTE KEY into foundation; which is vital.

REFERENCES TO WORK EXECUTED.

NATIONAL LIBERAL CLUB.
JUNIOR CARLTON CLUB.
ROYAL INFIRMARY, LIVERPOOL.
SUNDERLAND INFIRMARY.
BANK OF ENGLAND (FLEET STREET).
UNION BANK OF LONDON.
OWEN'S COLLEGE, MANCHESTER.
FLEET, IVYBRIDGE, MILEWAY, &c.

PRUDENTIAL ASSURANCE HEAD OFFICES.
SHAKESPEARE MEMORIAL, STRATFORD-ON-AVON.
MERCHANT TAYLORS HALL.
GAS LIGHT & COKE COMPANY, WESTMINSTER.
LONDON & SOUTH WESTERN BANK.
BUERLEY HILL BANK.
HONANLY HOUSES FOR EARL OF LAYELACE.
LONGRIDGE TOWERS FOR M. E. H. JERNINGHAM, Esq., M.P.

For Ebner's Mosaic Floors see Page 324.

B-CARPENTRY AND JOINERY.

THOS. GREGORY & CO'S WOOD BLOCK FLOORING,

FOR CHURCHES, SCHOOLS, OFFICES, BASEMENTS, &c.

Messrs. GREGORY & Co. beg to thank their numerous clients and patrons for their continued support during the 25 years they have manufactured Wood Block Flooring. As the oldest established manufacturers in the trade they endeavour to keep pace with the numerous inventions and improvements that have, at various times, been introduced, and with this end in view they have made arrangements with Mr. W. T. Creed to work his patent for keying and bonding the blocks together, and thus forming a solid and thoroughly bonded floor. This invention can be worked in Hard Wood as well as Deal, Pitch Pine, &c. at a small additional cost to ordinary wood blocks. Messrs. Gregory and Co. still continue to manufacture all kinds of Wood Block Flooring at prices to suit all classes of work. Their Burntized Blocks will stand more wear and tear than any other deal floor.

PATTERNS.

No. 1.
Common Herring Bone.



No. 2.
Common Interlacing.



No. 3.
Interlacing with Squares.



No. 4.
Small Interlacing



WOOD BLOCK FLOORING was introduced by W. WHITE, Esq., F.S.A., 25 years ago; we still hold the license for the manufacturing of his system. It is not liable to the ravages of dry rot or vermin; it is dry and warm to the feet, solid and firm to the tread, leaves no space beneath to harbour mice or beetles, is free from the noise and echo of a common boarded floor so objectionable in Schools, Churches, or other public Buildings, durable in wear, easily replaced when worn out, and altogether superior to the ordinary boards and joists for general ground floor purposes. As a covering for fire proof floors, for offices, &c. it is the best and most economical yet introduced to the public.

It has been used for Floors in York Minster, St. Paul's Cathedral, Westminster Abbey, and Buildings connected with the Public Schools of Winchester, Eton, Harrow, Rugby, and Marlboro'.

WE PREPARE THREE QUALITIES OF DEAL BLOCKS.

- | | |
|--|--|
| A out of BEST DEAL, Burntized, Cut and Grooved Joints and Traversed Surface. | } Please note alteration
in Classes of Qualities. |
| B " SECOND do. do. Square Joints, unequalities planed off. | |
| C " THIRD do. do. Planed Surface only. | |

PRICES ON APPLICATION.

In consequence of the fluctuations in the Timber Market, the Prices vary so much that it is advisable to apply for special quotations.

Our attention has been called to the fact that imitators of our Flooring are sending out goods entirely "unprepared." Please note our Goods are properly Burntized and Seasoned.

NOTE.—For Churches, Universities, Girls' or Infant Schools, blocks 1½ inch thick are sufficient. For Boys' Schools 2½ and 3. For Factories thicker blocks according to amount of wear. Special Estimates will be given for other patterns, for coloured or hard woods, and for laying the Flooring in Town or Country. Directions for laying are given when blocks are supplied. Any further particulars may be had on application to the Manufacturers.

THOMAS GREGORY & CO.,
WOOD PAYING AND STEAM JOINERY WORKS,
STATION WORKS, CLAPHAM JUNCTION, LONDON, S.W.

AGENTS FOR LIVERPOOL, MANCHESTER, AND NEIGHBOURHOOD:
J. D. KELLY & Co., 4, Sweeting Street, Dale Street, Liverpool.

SPECIAL NOTICE—Some persons having imitated this Paying the Public are informed that no improvement can be claimed that cannot be carried out by the original Manufacturers.

B-CARPENTRY AND JOINERY.

58 & 60
WILSON ST
FINSBURY
E. C.

Telephone No. 498.

Telegraphic Address, "PANDEMONIUM," London

ORANGE ST
GRAVEL LANE
SOUTHWARK
S. E.

J. F. & G. HARRIS, MAHOGANY AND GENERAL TIMBER MERCHANTS AND MOULDING MANUFACTURERS.

58 & 60, WILSON STREET, FINSBURY, E.C.
ORANGE STREET, GRAVEL LANE, SOUTHWARK, S.E. } LONDON.
VICTORIA WHARF, TWIG FOLLY BRIDGE, BETHNAL GREEN, E.

MANUFACTURERS OF THE REGISTERED FANCY WOOD DECORATIONS.
WOULD-NOT BE MADE TO ANY DESIGN AND IN ANY WOOD.

HIGHEST AWARDS—

SILVER MEDAL.
INTERNATIONAL
EXPOSITION, BRUXELLES,
1889.

SILVER MEDAL.
SOCIETY OF ARCHITECTS,
LONDON, 1885.
FIRST CLASS CERTIFICATE
BRUXELLES, 1889.

BRONZE MEDAL.
SANITARY INSTITUTE
OF
GREAT BRITAIN,
HEALTHY EXHIBITION,
1884.

BRONZE MEDAL.
FIRST ORDER OF MERIT.
AMSTERDAM, 1883.

CATALOGUES & PRICE LISTS
forwarded on application.



DRY STOCK,

IN ALL THE CORNERS OF
AMERICAN WALNUT, OAK,
ASH, BIRCH, WHITEWOOD,
PINE, SPRUCE, PITCHPINE,
&c.

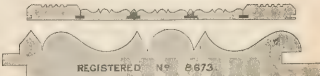
TEAK, WAINSCOT CEDAR,
CURA, HONDURAS AND
TOSABO MAHOGANY, &c.

YELLOW & WHITE PLANE,
DEALS, and BATTERS,
Cut in Stock.

ALL WIDTHS AND THICKNESSES
OF FLOORINGS AND
MATCHLININGS, &c.

VENETIAN LATHS, &c.

SPECIAL QUOTATIONS
ON RECEIPT OF
QUANTITIES.



REGISTERED No. 8673.

MAHOGANY AND HARDWOOD MOULDINGS IN STOCK.

COVERS AND CASINGS MADE TO ANY DESIGN.



J. F. & G. HARRIS,
MAHOGANY & GENERAL
TIMBER MERCHANTS
AND
MOULDING MANUFACTURERS.

GROOVES
MADE
TO TAKE
CABLES
TO ANY
SIZE

OFFICES: 58 & 60, WILSON STREET, FINSBURY, E.C. 1. LONDON.
ORANGE STREET, GRAVEL LANE, SOUTHWARK, S.E. 1.
VICTORIA WHARF, TWIG FOLLY BRIDGE, BETHNAL GREEN, E. 1.

ELECTRIC LIGHT CASINGS IN STOCK.

Sawing
Planing
AND
Moulding Mills.



VICTORIA
WHARF
Twigg Folly Bridge,
BETHNAL GREEN,
E. 1.

B-CARPENTRY AND JOINERY.

HINDLEY & SONS,

Steam Factory, Erskine Road, N.W. 290-294, OXFORD STREET, LONDON. (Estd. 1847.)

MANUFACTURERS OF WOOD PANELLING (SOLID).

Pine Panelling, 1/5 per foot Super.

Oak (Wainscot) do. 2/3 per foot Super.

These Panellings are SOLID and not veneered in any way. Specimens showing construction in Show Rooms.

PARQUET FLOORING (BRITISH)

SOLID 1 inch WAINSCOT (Herring Bone).

Laid & polished £7 5s. a Square.

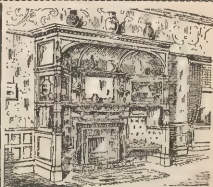
SOLID 1 inch WAINSCOT Flooring

Tongued, laid & polished, £6 13s. a Square, with wide border.

SOLID 1/2 inch OAK PARQUET,

Laid & polished £4 3s. 6d. a Square.

ASK FOR ESTIMATES.



INGLE NOOK Upholstered Complete (Grate Excluded), £45.

WOOD MANTELS,

IN ALL WOODS, from 24/- to £100.

Upwards of 100 designs to select from in STOCK.

GRATES, TILE HEARTHES, FENDERS.

INTERIOR JOINERY.

DOORS & OVERDOORS, from 15/-

INGLE NOOKS.

PANELLED CEILINGS.

DESIGNS PREPARED.

Send for new illustrated Price List of Parquet Flooring, Wood Mantels and Panelling, Grates, &c. Estimates Free.

Painting, Decoration, Wall Paper, etc.

HINDLEY & SONS,

290 to 294, OXFORD STREET,
W.



OAK, fumigated & polished, 2/3 per Square Foot.

PINE, primed for painting 1/5 " " "

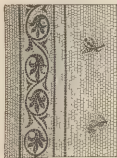
CONTRACTORS' COMPENDIUM

117

B—CARPENTRY AND JOINERY.

TURPIN'S
PARQUET FLOOR, JOINERY, & WOOD CARVING Co., LD.
OFFICES AND SHOWROOMS,
22, QUEEN'S ROAD, BAYSWATER, LONDON, W.

ESTABLISHED 25 YEARS.



No. 10



No. 12



No. 15

MARBLE & CERAMIC MOSAICS FOR FLOORS.

Enamel and Marble Mosaics for Mural Decorations.

SPECIAL SHEET OF DESIGNS SHOWING SUNDRY MODES
OF TREATMENT OF THE ABOVE, CAN BE OBTAINED ON APPLICATION.

WOOD CARVINGS, ARCHITECTURAL, &c.,

EXECUTED FOR THE TRADE IN ALL STYLES.

ARTISTIC JOINERY IN ALL ITS BRANCHES,

COMPREHENDING—

Chimney Pieces. Staircases.
Ceilings. Mouldings. Doors, &c.

B-CARPENTRY AND JOINERY.

TURPIN'S PARQUET FLOOR, JOINERY, & WOOD CARVING Co., LD.

OFFICES AND SHOWROOMS,

22, QUEEN'S ROAD, BAYSWATER, LONDON, W.

ESTABLISHED 25 YEARS.

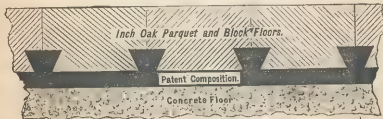


1 INCH THICK PARQUET, from 7d. per foot super.
Solid throughout, for laying direct on Joists, Wood, or Concrete Floors.

⁵/₁₆ INCH THICK PARQUET, 4d. per foot super
TURPIN'S Patent Construction for laying on Wood Concrete, or Stone Floors (See Construction)



1 INCH THICK OAK BLOCK FLOORINGS, at 4 10s per yard super
Prepared on TURPIN'S System of laying on Concrete, or Stone secured on same with Dovetail Grooves and Patent Composition. (See Section)



1 INCH THICK ANTISEPTIC BEECH BLOCK FLOORINGS at 4 6s per yard super.
Prepared by TURPIN'S System of Antiseptic Infusion, forcing sap out of Timber replaced by Antiseptic Chemicals, and hardening Timber at the same time, for laying in Hospitals, Churches, Board Schools, and Public Buildings, effectually preventing the spreading of fevers, contagious diseases &c.

SPECIAL NOTICE.—An enormous Stock of over ONE MILLION superficial feet of the above thoroughly tested, seasoned floors ready for delivery, stored in specially fitted store rooms, where an even temperature is kept up all throughout the year.

B—CARPENTRY AND JOINERY.

THE LATEST AND MOST IMPORTANT IMPROVEMENTS IN WOOD BLOCK FLOORING.

THE WOOD BLOCK FLOORING Co.



Being the largest Importers, Manufacturers, and Layers of every kind of Flooring in the Kingdom, we are in a position to give the fullest guarantee for First-class work, expeditiously carried out.

Large Stocks of DEAL, PITCH-PINE, OAK, &c., always on hand to meet urgent demands.

GEARY'S PATENT "INVINCIBLE" SYSTEM.*

Each Block is keyed direct to the substructure by means of metal keys dovetailed into the Blocks. No other system possesses this advantage.

SECTIONS OF FLOORS LAID BY THE WOOD BLOCK FLOORING COMPANY.

A

B*

C.



The following prices are APPROXIMATE ONLY. Special Quotations will be given on receipt of particulars (and plan where convenient).

	A.				B*.				C.			
	1"	1 1/2"	1 3/4"	2"	1"	1 1/2"	1 3/4"	2"	1"	1 1/2"	1 3/4"	2"
Red or Yellow Deal	..	..	5/9	6/-	..	..	6/6	7/9	..	..	6/6	7/9
Pitch Pine	..	..	6/3	6/9	..	..	7/6	8/3	..	..	7/-	7/6
Oak	..	..	9/-	10/-	..	..	10/-	11/-	..	..	10/-	11/-

For Super Yard, Laid complete, exclusive of Concrete. B* Includes "labour" of "floating" in Cement

Prices given for any kind, thickness, size or pattern. Designs, Samples, &c., free on application.

SPECIFICATION.—Architects intending to specify are respectfully asked to insert "To be laid complete by the Wood Block Flooring Company, 22, CHARING CROSS, LONDON, S.W."

Parquet Floors.

Quarter-inch, Half-inch, and Inch SOLID OAK Parquet Flooring laid complete in Patent Mastic Cement, on Concrete, Stone, Wood, or Asphaltic from 9d. (1/2 inch), 1s. (1/2 inch), and 1s. 2d. (1 inch) per super foot.

Chief Offices: 22, CHARING CROSS, LONDON, S.W.

A. E. GEARY, Manager.

Telegrams—
"EARTH, LONDON."

B—CARPENTRY AND JOINERY.

THE
WOOD BLOCK FLOORING Co.,

22, CHARING CROSS, LONDON, S.W.

A. E. GEARY, Manager.

CONTRACTORS TO HER MAJESTY'S GOVERNMENT, &c.

OAK FITTINGS

OF ALL KINDS FOR

Churches, Banks, Schools, Mansions, Etc.
Pulpits, Benches, Reredoses, Staircases, Screens, Paneling,
Carved Work, &c.

Manufactured at our own extensive Works out of naturally seasoned Wood (5 to 7 years in stock)

✦ FIRST-CLASS ✦ WORKMANSHIP ✦ GUARANTEED. ✦

Estimates free on receipt of Drawings and Specification.

**WOOD BLOCK, PARQUET, AND WOOD MOSAIC
FLOORINGS.**

TONGUED AND GROOVED, AND "SECRET JOINT" OAK BOARDS.
Speciality—DARK AND LIGHT OAK.

THE
WOOD BLOCK FLOORING Co.,
22, Charing Cross, London, S.W.

B-CARPENTRY AND JOINERY.

PETERS, BARTSCH & CO., DERBY.

Telegraphic Address—
"PETERS, DERBY."

Registered.]

CARBOLINEUM

[Registered.

"Avenarius,"

The well known PRESERVATIVE OF WOOD, STONE, ROPES, Etc., against ROTTING, DECAY, FUNGUS, Etc., and sure PREVENTIVE OF DAMPNES in WALLS.

Used with immense success by Military Authorities, Board of Works, Railway Companies, Tramways, Mines, Builders, Contractors, Public Gardens, Estates, Brewers, Etc., Etc.

TESTS UPWARDS OF TWENTY YEARS.

CARBOLINEUM *can only be had from*
PETERS, BARTSCH & Co., OR THEIR AUTHORISED AGENTS.

See also ANTIOXIDE INDESTRUCTIBLE COMBINATION WANDERS, p 143. "SMOKELESS STOVES & CHEMICAL HEAT RETAINERS," p 186.

THE SPIRAL WOOD CUTTING COMPANY, LTD.,

EDWARD STREET, WHARF ROAD, CITY ROAD, LONDON, E.C.

Steam Works for Joinery & every kind of Turning.

SPIRAL TURNING.		SPECIALITIES:— SASHES & FRAMES.		WATER CLOSET SEATS.	
Spiral Balusters from 2/6 per dozen		GOOD YELLOW DEAL.		3 ft. wide, Ready for Fixing	
Square Turning at hitherto unknown Low Prices		1½ inch at 6d. per foot.	American White Wood 1/- each		
Plain Turning.		1½ inch at 6½d. per foot.	Mahogany 1/6 ..		
Balusters from 1s. 3d. per doz.		2 inch at 7d. per foot.	Walnut 21/- ..		
Turning of Every Description done.		Special attention given to Architects' Designs and Special Patterns.			
		Silver Medal Building Trades' Exhibition London 1889			

NOTES REFERRING TO GOODS IN THIS SECTION.

B.-CARPENTRY AND JOINERY.

Westminster Patent Flooring Company.

NEW PATENT "DISC-KEY" SYSTEM OF LAYING WOOD BLOCK FLOORS.

BLOCKS PERFECTLY BONDED AND FIXED TO CONCRETE.



Concrete Blocks are now made 4in. by 4in. by 2 1/2 in., and fixed at intervals of 1 yard, i.e., one at corner of every square yard of floor.

This is a new and simple method of laying wood floors, and is a great improvement on the old method of laying wood floors.

The blocks are grooved along the sides, and two "disc-keys" AA (of various patent shapes), are placed in the grooves, and the blocks are pressed together, and the disc-keys are pressed into the concrete, and the blocks are fixed to the concrete.

and attached to special "disc-keys" (BB), which tie the blocks firmly to the sub-structure. These nails do not show on the surface, and thus any unsightly holes, plugs, or wafers are avoided. (See illustration.)

The bonding blocks to hold the nails are made of specially prepared tough concrete, which, unlike wood, will not shrink, decay, or burn, and to which the cement concrete bed perfectly adheres. After a short time the nails hold tighter and firmer in this material than in wood.

The discs are of galvanized iron (or zinc or other non-corrosive substance if desired), and being only about 1/16 in. thick, the blocks are not materially cut away. A thinner floor may, consequently, be laid, which is a considerable saving in expensive hardwoods.

The blocks are laid in a strong waterproof composition, which prevents damp rising, preserves the wood, and forms an adhesive joint between the pieces and in the dovetailed grooves.

Deal, pine, pine, oak, American walnut, beech, birch, mahogany, jessie, palook, &c., are all kept in stock and can be prepared on disc notice to any sawmills or specifications.

If architects will kindly inform us when they have specified this system, we can meet their exact requirements and avoid delay.

For heavy traffic, floors of foreign prepared blocks, similar to those laid in Board Schools (of which we hold a large stock) are available.

The price is naturally lower and we shall be pleased to quote for same if desired.

We recommend, however, floors laid on "disc-key" system, as experience proves their superiority both in appearance and firmness. The frequent rising or unevenness of the blocks after they are placed is prevented. We have imported a large stock both in deal and oak, grooved and ready for laying, and can execute orders at short notice.

Improve
ment.

System of
Bonding.

Keying to
Concrete
Founda-
tion.

Bonding
Blocks.

"Disc-Keys"

elastic.

Woods.

Specifying.

Schools,
Tasements
&c.

Imported
"Disc-Key"
Blocks



Section showing fixing disc-key.

B-CARPENTRY AND JOINERY.

DESCRIPTION OF WOODS FOR FLOORS WITH MOST SUITABLE USES

(PLACED IN ORDER OF VALUE).

1. Deal Yellow. Cheapest. Durable and useful in all climates, passages, and to some extent for rooms. Light clean colour.
2. Pitch Pine. Cheapest "hardwood." Used in Board Schools in London, &c., for hard wear. Clean, warm appearance. Resisting ornamental grain if selected and polished.
3. Beech. Hard, close-grained impervious wood of clean colour. Washes white and takes polish well. Suitable for hallways and public buildings under hard wear, and from ceiling also for hospital wards from its closeness, but should be rubbed with oil (polished). Lustrousness of beech is not so durable as oak.
4. Birch. Hard, pretty reddish colour, frequently with good figure, suitable for bed, billiard and other rooms, passages, &c. Tough, hard and ornamental. Quite unobtrusive colour. Good wood for wear and durability in any position. Similar effect to parquet flooring, if selected for figure and polished.
5. Oak (white oak). Hard Indian wood of bright red colour, with dark veins. Rich handsome floor if polished, but too dark colour alone in most positions. Suitable for hallways or salons with birch, oak or pitch pine.
6. Jarrah. Hard red eucalyptus from Australia. Frequently pretty wavy figure. Goes well with pitch pine, birch or beech, suitable for hospital wards or operating rooms. Close grain, practically indestructible by wear or rot. Now much used for street paving. Suitable for rough hard wear in shops, warehouses, restaurants and domestic offices. If selected and polished, useful for interior decoration.
7. Mahogany Honduras. Soft, warm red, light in colour and with many other shades. Most ornamental grain and improves in colour with age.
8. Walnut (American, or "Black"). Dark brown or purple. Useful for border or variegating oak, with which it harmonizes well. Colour varies from dark rich brown to straw. Very hard, gritty and stringy. Suitable for passages, halls, or hard rough wear in factories or public buildings entering from street. Does not show much stain.
9. Teak. Colour varies from dark rich brown to straw. Very hard, gritty and stringy. Suitable for passages, halls, or hard rough wear in factories or public buildings entering from street. Does not show much stain.

BOARDED FLOORS.

- Woods by which the floor is prepared, and the board is of the same wood, with special joints designed to give great strength for severe traffic. Each angle of the tongue being slightly rounded, the strakes are not so liable to damage in transit, and the joints come up closer.
- Attention is drawn to our thin round-tongued oak floor, finishing from $\frac{1}{2}$ to $\frac{3}{4}$ inch for laying on rough deal floors in new buildings when the plastering is finished and the house is dry.
- It can also be laid over old deal floors without seriously disturbing doors and other work.
- This floor is fixed with patent glue and served nailed with special flat elliptical nail floor beads.
- If required to be not thicker than $\frac{1}{2}$ inch, this floor is prepared with square edges and nailed with very fine wire nails, and the holes filled with stopping, and the whole polished.

PRICE LIST OF PATENT DESICCATED "DISC-KEY" BLOCK FLOORING,

Showing approximate and proportionate cost for reasonable quantity laid in London within three miles circuit from works. If outside or in country add carriage of materials, railway fares, lodging, and time travelling.

I. Blocks planed all round and dovetail-grooved, dipped, and laid in special damp-proof mastic and properly cleaned off at completion. II. Blocks as in No. I., but specially grooved and laid on patent "Disc-key" system, each block keyed to 6 others.

Prices per yard super.		I. ORDINARY.			II. "Disc-Key" Patent.		
		Thick	Thin	Thin	Thick	Thin	Thin
1. Deal yellow or red (size of blocks 18in. x 3in. nominal)		12.00	6.00	5.00	15.00	8.00	7.00
2. Pitch pine		12.00	6.00	5.00	15.00	8.00	7.00
3. Beech (size of blocks 12in. x 3in. nominal)		12.00	6.00	5.00	15.00	8.00	7.00
4. Birch		12.00	6.00	5.00	15.00	8.00	7.00
5. Oak (white oak) (planed figured)		12.00	6.00	5.00	15.00	8.00	7.00
6. Jarrah (red Indian wood)		12.00	6.00	5.00	15.00	8.00	7.00
7. Mahogany (American block)		12.00	6.00	5.00	15.00	8.00	7.00
8. Mahogany (Honduras)		12.00	6.00	5.00	15.00	8.00	7.00
9. Teak		12.00	6.00	5.00	15.00	8.00	7.00
10. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
11. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
12. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
13. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
14. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
15. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
16. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
17. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
18. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
19. Parquet		12.00	6.00	5.00	15.00	8.00	7.00
20. Parquet		12.00	6.00	5.00	15.00	8.00	7.00

Straight cut and planed waste to margins—
Circular or scabbing

24in. 12in. 10in. 8in. 6in. 4in. 3in. 2in. 1in. 1/2in. 1/4in. 1/8in. 1/16in. 1/32in. 1/64in. 1/128in. 1/256in. 1/512in. 1/1024in. 1/2048in. 1/4096in. 1/8192in. 1/16384in. 1/32768in. 1/65536in. 1/131072in. 1/262144in. 1/524288in. 1/1048576in. 1/2097152in. 1/4194304in. 1/8388608in. 1/16777216in. 1/33554432in. 1/67108864in. 1/134217728in. 1/268435456in. 1/536870912in. 1/1073741824in. 1/2147483648in. 1/4294967296in. 1/8589934592in. 1/17179869184in. 1/34359738368in. 1/68719476736in. 1/137438953472in. 1/274877906944in. 1/549755813888in. 1/1099511627776in. 1/2199023255552in. 1/4398046511104in. 1/8796093022208in. 1/17592186044416in. 1/35184372088832in. 1/70368744177664in. 1/140737488355328in. 1/281474976710656in. 1/562949953421312in. 1/1125899906842624in. 1/2251799813685248in. 1/4503599627370496in. 1/9007199254740992in. 1/18014398509481984in. 1/36028797018963968in. 1/72057594037927936in. 1/144115188075855872in. 1/288230376151711744in. 1/576460752303423488in. 1/1152921504606846976in. 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B.-CARPENTRY AND JOINERY.

WESTMINSTER PATENT FLOORING COMPANY. ESTD 1844

DESIGNS FOR PARQUET FLOORING.

Note: Prices are per foot sup for the several patterns and complete & one-half in quantity of not less than 100 ft. sup within limits of work.

1 2 3 4 5 6 7 8 9 10 11 12



No. 1. Herringbone, Oak.
Price 1/10d 1/2d.



No. 2. Basket pattern.
Price 1/10d 1/2d.



No. 3. Diagonal pattern.
Price 1/10d 1/2d.



No. 4. Diagonal pattern.
Price 1/10d 1/2d.



No. 5. Diagonal pattern.
Price 1/10d 1/2d.



No. 6. Diagonal pattern.
Price 1/10d 1/2d.



No. 7. Diagonal pattern.
Price 1/10d 1/2d.



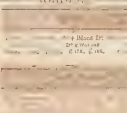
No. 8. Diagonal pattern.
Price 1/10d 1/2d.



No. 9. Diagonal pattern.
Price 1/10d 1/2d.



No. 10. Diagonal pattern.
Price 1/10d 1/2d.



No. 11. Diagonal pattern.
Price 1/10d 1/2d.



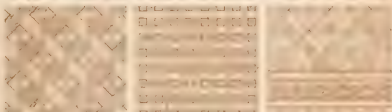
No. 12. Diagonal pattern.
Price 1/10d 1/2d.

For further particulars apply to the **WESTMINSTER PATENT FLOORING COMPANY, 10, BLOOMSBURY STREET, WESTMINSTER, LONDON, W.C.** Inspection invited. P.T.O.

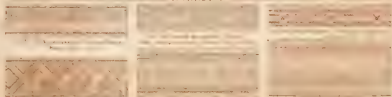
B-CARPENTRY AND JOINERY.

WESTMINSTER PATENT FLOORING COMPANY limited, 55, Abchurch Lane, London, E.C. 4
DESIGNS FOR PARQUET FLOORING

FILLINGS



BOARDS



THE COMPLETE CATALOGUE.

Section C. CEMENTS, LIMES, SLATES, ASPHALTES, &c. COMPRISING GENERAL BUILDING MATERIALS.

FIRMS REPRESENTED IN THIS SECTION.

	PAGE		PAGE		PAGE
ADAMANT CO. LD., THE	127	JOHNSON, CLAPHAM & MORRIS	132	ROBINSON J. & Co., LD.	130, 131
ANDERSON I. & SONS LD.	128	NICHOLSON & CO. LD.	128	ROSSER, F. & CO.	129
ELLIS J. & SONS	132	LARKY H. & CO.	134	UNITED WESTERN SLATE CO. LD.	132
GREAVES, BULL & LARKIN	135	PENYDRENE SLATE QUARRY CO. LD.	131	WHITF. WM.	125

NOTES REFERRING TO GOODS IN THIS SECTION.

WILLIAM WHITE, Head Office and Works - ABERGAVENNY.



GOLD.



SILVER.



A brick on that end
was an edge of it only
who for Cargoes, at
whose great economy is
required. It is equal
disposal, also equal
as strength is a fact
the built with concrete
stone

INTERNATIONAL HEALTH EXHIBITION: GOLD MEDAL AWARDED.

Silver Medal Awarded.
Liverpool International Exhibition.
IN 1884 BY
H.M. War Office, H.M. Office of Works
H. M. Commissioners of Prisons.
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105, COLMORE ROW, BIRMINGHAM, 1889.

From Mr. JOHN TAYLOR, Painter and Decorator.

22, HEDGE STREET, BIRMINGHAM, November 28, 1888.

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For Mr. JOHN TAYLOR, G.C.

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25, COLMORE ROW, BIRMINGHAM, 1889.

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15, WATERLOO STREET, BIRMINGHAM, 1889.

From Messrs. J. BARNESLEY & SONS, Builders, &c.

105, RYLAND STREET, BIRMINGHAM, February 28th, 1889.

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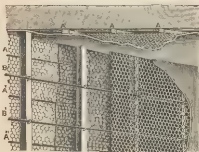
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D-ENGINEERING AND FIREPROOF CONSTRUCTION.

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6, ADEW MANCHESTER,
SHUTTLEWORTH, AND CARDIFF.



MELBOURNE CENTENNIAL EXHIBITION, 1882-3.

THREE FIRST "ORDERS OF MERIT," THREE GOLD MEDALS, AND ONE "SPECIAL MENTION,"
AWARDED EVANS' PUMPS.

APPLY FOR
CATALOGUE
NO. 6A.



Bore of Working Barrel	4"	4 1/2"	5"	5 1/2"	6"	6 1/2"	7"	7 1/2"	8"	8 1/2"	9"	9 1/2"	10"	10 1/2"	11"	11 1/2"	12"	12 1/2"	13"	13 1/2"	14"	14 1/2"	15"	15 1/2"	16"	16 1/2"	17"	17 1/2"	18"	18 1/2"	19"	19 1/2"	20"	20 1/2"	21"	21 1/2"	22"	22 1/2"	23"	23 1/2"	24"	24 1/2"	25"	25 1/2"	26"	26 1/2"	27"	27 1/2"	28"	28 1/2"	29"	29 1/2"	30"	30 1/2"	31"	31 1/2"	32"	32 1/2"	33"	33 1/2"	34"	34 1/2"	35"	35 1/2"	36"	36 1/2"	37"	37 1/2"	38"	38 1/2"	39"	39 1/2"	40"	40 1/2"	41"	41 1/2"	42"	42 1/2"	43"	43 1/2"	44"	44 1/2"	45"	45 1/2"	46"	46 1/2"	47"	47 1/2"	48"	48 1/2"	49"	49 1/2"	50"	50 1/2"	51"	51 1/2"	52"	52 1/2"	53"	53 1/2"	54"	54 1/2"	55"	55 1/2"	56"	56 1/2"	57"	57 1/2"	58"	58 1/2"	59"	59 1/2"	60"	60 1/2"	61"	61 1/2"	62"	62 1/2"	63"	63 1/2"	64"	64 1/2"	65"	65 1/2"	66"	66 1/2"	67"	67 1/2"	68"	68 1/2"	69"	69 1/2"	70"	70 1/2"	71"	71 1/2"	72"	72 1/2"	73"	73 1/2"	74"	74 1/2"	75"	75 1/2"	76"	76 1/2"	77"	77 1/2"	78"	78 1/2"	79"	79 1/2"	80"	80 1/2"	81"	81 1/2"	82"	82 1/2"	83"	83 1/2"	84"	84 1/2"	85"	85 1/2"	86"	86 1/2"	87"	87 1/2"	88"	88 1/2"	89"	89 1/2"	90"	90 1/2"	91"	91 1/2"	92"	92 1/2"	93"	93 1/2"	94"	94 1/2"	95"	95 1/2"	96"	96 1/2"	97"	97 1/2"	98"	98 1/2"	99"	99 1/2"	100"	100 1/2"	101"	101 1/2"	102"	102 1/2"	103"	103 1/2"	104"	104 1/2"	105"	105 1/2"	106"	106 1/2"	107"	107 1/2"	108"	108 1/2"	109"	109 1/2"	110"	110 1/2"	111"	111 1/2"	112"	112 1/2"	113"	113 1/2"	114"	114 1/2"	115"	115 1/2"	116"	116 1/2"	117"	117 1/2"	118"	118 1/2"	119"	119 1/2"	120"	120 1/2"	121"	121 1/2"	122"	122 1/2"	123"	123 1/2"	124"	124 1/2"	125"	125 1/2"	126"	126 1/2"	127"	127 1/2"	128"	128 1/2"	129"	129 1/2"	130"	130 1/2"	131"	131 1/2"	132"	132 1/2"	133"	133 1/2"	134"	134 1/2"	135"	135 1/2"	136"	136 1/2"	137"	137 1/2"	138"	138 1/2"	139"	139 1/2"	140"	140 1/2"	141"	141 1/2"	142"	142 1/2"	143"	143 1/2"	144"	144 1/2"	145"	145 1/2"	146"	146 1/2"	147"	147 1/2"	148"	148 1/2"	149"	149 1/2"	150"	150 1/2"	151"	151 1/2"	152"	152 1/2"	153"	153 1/2"	154"	154 1/2"	155"	155 1/2"	156"	156 1/2"	157"	157 1/2"	158"	158 1/2"	159"	159 1/2"	160"	160 1/2"	161"	161 1/2"	162"	162 1/2"	163"	163 1/2"	164"	164 1/2"	165"	165 1/2"	166"	166 1/2"	167"	167 1/2"	168"	168 1/2"	169"	169 1/2"	170"	170 1/2"	171"	171 1/2"	172"	172 1/2"	173"	173 1/2"	174"	174 1/2"	175"	175 1/2"	176"	176 1/2"	177"	177 1/2"	178"	178 1/2"	179"	179 1/2"	180"	180 1/2"	181"	181 1/2"	182"	182 1/2"	183"	183 1/2"	184"	184 1/2"	185"	185 1/2"	186"	186 1/2"	187"	187 1/2"	188"	188 1/2"	189"	189 1/2"	190"	190 1/2"	191"	191 1/2"	192"	192 1/2"	193"	193 1/2"	194"	194 1/2"	195"	195 1/2"	196"	196 1/2"	197"	197 1/2"	198"	198 1/2"	199"	199 1/2"	200"	200 1/2"	201"	201 1/2"	202"	202 1/2"	203"	203 1/2"	204"	204 1/2"	205"	205 1/2"	206"	206 1/2"	207"	207 1/2"	208"	208 1/2"	209"	209 1/2"	210"	210 1/2"	211"	211 1/2"	212"	212 1/2"	213"	213 1/2"	214"	214 1/2"	215"	215 1/2"	216"	216 1/2"	217"	217 1/2"	218"	218 1/2"	219"	219 1/2"	220"	220 1/2"	221"	221 1/2"	222"	222 1/2"	223"	223 1/2"	224"	224 1/2"	225"	225 1/2"	226"	226 1/2"	227"	227 1/2"	228"	228 1/2"	229"	229 1/2"	230"	230 1/2"	231"	231 1/2"	232"	232 1/2"	233"	233 1/2"	234"	234 1/2"	235"	235 1/2"	236"	236 1/2"	237"	237 1/2"	238"	238 1/2"	239"	239 1/2"	240"	240 1/2"	241"	241 1/2"	242"	242 1/2"	243"	243 1/2"	244"	244 1/2"	245"	245 1/2"	246"	246 1/2"	247"	247 1/2"	248"	248 1/2"	249"	249 1/2"	250"	250 1/2"	251"	251 1/2"	252"	252 1/2"	253"	253 1/2"	254"	254 1/2"	255"	255 1/2"	256"	256 1/2"	257"	257 1/2"	258"	258 1/2"	259"	259 1/2"	260"	260 1/2"	261"	261 1/2"	262"	262 1/2"	263"	263 1/2"	264"	264 1/2"	265"	265 1/2"	266"	266 1/2"	267"	267 1/2"	268"	268 1/2"	269"	269 1/2"	270"	270 1/2"	271"	271 1/2"	272"	272 1/2"	273"	273 1/2"	274"	274 1/2"	275"	275 1/2"	276"	276 1/2"	277"	277 1/2"	278"	278 1/2"	279"	279 1/2"	280"	280 1/2"	281"	281 1/2"	282"	282 1/2"	283"	283 1/2"	284"	284 1/2"	285"	285 1/2"	286"	286 1/2"	287"	287 1/2"	288"	288 1/2"	289"	289 1/2"	290"	290 1/2"	291"	291 1/2"	292"	292 1/2"	293"	293 1/2"	294"	294 1/2"	295"	295 1/2"	296"	296 1/2"	297"	297 1/2"	298"	298 1/2"	299"	299 1/2"	300"	300 1/2"	301"	301 1/2"	302"	302 1/2"	303"	303 1/2"	304"	304 1/2"	305"	305 1/2"	306"	306 1/2"	307"	307 1/2"	308"	308 1/2"	309"	309 1/2"	310"	310 1/2"	311"	311 1/2"	312"	312 1/2"	313"	313 1/2"	314"	314 1/2"	315"	315 1/2"	316"	316 1/2"	317"	317 1/2"	318"	318 1/2"	319"	319 1/2"	320"	320 1/2"	321"	321 1/2"	322"	322 1/2"	323"	323 1/2"	324"	324 1/2"	325"	325 1/2"	326"	326 1/2"	327"	327 1/2"	328"	328 1/2"	329"	329 1/2"	330"	330 1/2"	331"	331 1/2"	332"	332 1/2"	333"	333 1/2"	334"	334 1/2"	335"	335 1/2"	336"	336 1/2"	337"	337 1/2"	338"	338 1/2"	339"	339 1/2"	340"	340 1/2"	341"	341 1/2"	342"	342 1/2"	343"	343 1/2"	344"	344 1/2"	345"	345 1/2"	346"	346 1/2"	347"	347 1/2"	348"	348 1/2"	349"	349 1/2"	350"	350 1/2"	351"	351 1/2"	352"	352 1/2"	353"	353 1/2"	354"	354 1/2"	355"	355 1/2"	356"	356 1/2"	357"	357 1/2"	358"	358 1/2"	359"	359 1/2"	360"	360 1/2"	361"	361 1/2"	362"	362 1/2"	363"	363 1/2"	364"	364 1/2"	365"	365 1/2"	366"	366 1/2"	367"	367 1/2"	368"	368 1/2"	369"	369 1/2"	370"	370 1/2"	371"	371 1/2"	372"	372 1/2"	373"	373 1/2"	374"	374 1/2"	375"	375 1/2"	376"	376 1/2"	377"	377 1/2"	378"	378 1/2"	379"	379 1/2"	380"	380 1/2"	381"	381 1/2"	382"	382 1/2"	383"	383 1/2"	384"	384 1/2"	385"	385 1/2"	386"	386 1/2"	387"	387 1/2"	388"	388 1/2"	389"	389 1/2"	390"	390 1/2"	391"	391 1/2"	392"	392 1/2"	393"	393 1/2"	394"	394 1/2"	395"	395 1/2"	396"	396 1/2"	397"	397 1/2"	398"	398 1/2"	399"	399 1/2"	400"	400 1/2"	401"	401 1/2"	402"	402 1/2"	403"	403 1/2"	404"	404 1/2"	405"	405 1/2"	406"	406 1/2"	407"	407 1/2"	408"	408 1/2"	409"	409 1/2"	410"	410 1/2"	411"	411 1/2"	412"	412 1/2"	413"	413 1/2"	414"	414 1/2"	415"	415 1/2"	416"	416 1/2"	417"	417 1/2"	418"	418 1/2"	419"	419 1/2"	420"	420 1/2"	421"	421 1/2"	422"	422 1/2"	423"	423 1/2"	424"	424 1/2"	425"	425 1/2"	426"	426 1/2"	427"	427 1/2"	428"	428 1/2"	429"	429 1/2"	430"	430 1/2"	431"	431 1/2"	432"	432 1/2"	433"	433 1/2"	434"	434 1/2"	435"	435 1/2"	436"	436 1/2"	437"	437 1/2"	438"	438 1/2"	439"	439 1/2"	440"	440 1/2"	441"	441 1/2"	442"	442 1/2"	443"	443 1/2"	444"	444 1/2"	445"	445 1/2"	446"	446 1/2"	447"	447 1/2"	448"	448 1/2"	449"	449 1/2"	450"	450 1/2"	451"	451 1/2"	452"	452 1/2"	453"	453 1/2"	454"	454 1/2"	455"	455 1/2"	456"	456 1/2"	457"	457 1/2"	458"	458 1/2"	459"	459 1/2"	460"	460 1/2"	461"	461 1/2"	462"	462 1/2"	463"	463 1/2"	464"	464 1/2"	465"	465 1/2"	466"	466 1/2"	467"	467 1/2"	468"	468 1/2"	469"	469 1/2"	470"	470 1/2"	471"	471 1/2"	472"	472 1/2"	473"	473 1/2"	474"	474 1/2"	475"	475 1/2"	476"	476 1/2"	477"	477 1/2"	478"	478 1/2"	479"	479 1/2"	480"	480 1/2"	481"	481 1/2"	482"	482 1/2"	483"	483 1/2"	484"	484 1/2"	485"	485 1/2"	486"	486 1/2"	487"	487 1/2"	488"	488 1/2"	489"	489 1/2"	490"	490 1/2"	491"	491 1/2"	492"	492 1/2"	493"	493 1/2"	494"	494 1/2"	495"	495 1/2"	496"	496 1/2"	497"	497 1/2"	498"	498 1/2"	499"	499 1/2"	500"	500 1/2"	501"	501 1/2"	502"	502 1/2"	503"	503 1/2"	504"	504 1/2"	505"	505 1/2"	506"	506 1/2"	507"	507 1/2"	508"	508 1/2"	509"	509 1/2"	510"	510 1/2"	511"	511 1/2"	512"	512 1/2"	513"	513 1/2"	514"	514 1/2"	515"	515 1/2"	516"	516 1/2"	517"	517 1/2"	518"	518 1/2"	519"	519 1/2"	520"	520 1/2"	521"	521 1/2"	522"	522 1/2"	523"	523 1/2"	524"	524 1/2"	525"	525 1/2"	526"	526 1/2"	527"	527 1/2"	528"	528 1/2"	529"	529 1/2"	530"	530 1/2"	531"	531 1/2"	532"	532 1/2"	533"	533 1/2"	534"	534 1/2"	535"	535 1/2"	536"	536 1/2"	537"	537 1/2"	538"	538 1/2"	539"	539 1/2"	540"	540 1/2"	541"	541 1/2"	542"	542 1/2"	543"	543 1/2"	544"	544 1/2"	545"	545 1/2"	546"	546 1/2"	547"	547 1/2"	548"	548 1/2"	549"	549 1/2"	550"	550 1/2"	551"	551 1/2"	552"	552 1/2"	553"	553 1/2"	554"	554 1/2"	555"	555 1/2"	556"	556 1/2"	557"	557 1/2"	558"	558 1/2"	559"	559 1/2"	560"	560 1/2"	561"	561 1/2"	562"	562 1/2"	563"	563 1/2"	564"	564 1/2"	565"	565 1/2"	566"	566 1/2"	567"	567 1/2"	568"	568 1/2"	569"	569 1/2"	570"	570 1/2"	571"	571 1/2"	572"	572 1/2"	573"	573 1/2"	574"	574 1/2"	575"	575 1/2"	576"	576 1/2"	577"	577 1/2"	578"	578 1/2"	579"	579 1/2"	580"	580 1/2"	581"	581 1/2"	582"	582 1/2"	583"	583 1/2"	584"	584 1/2"	585"	585 1/2"	586"	586 1/2"	587"	587 1/2"	588"	588 1/2"	589"	589 1/2"	590"	590 1/2"	591"	591 1/2"	592"	592 1/2"	593"	593 1/2"	594"	594 1/2"	595"	595 1/2"	596"	596 1/2"	597"	597 1/2"	598"	598 1/2"	599"	599 1/2"	600"	600 1/2"	601"	601 1/2"	602"	602 1/2"	603"	603 1/2"	604"	604 1/2"	605"	605 1/2"	606"	606 1/2"	607"	607 1/2"	608"	608 1/2"	609"	609 1/2"	610"	610 1/2"	611"	611 1/2"	612"	612 1/2"	613"	613 1/2"	614"	614 1/2"	615"	615 1/2"	616"	616 1/2"	617"	617 1/2"	618"	618 1/2"	619"	619 1/2"	620"	620 1/2"	621"	621 1/2"	622"	622 1/2"	623"	623 1/2"	624"	624 1/2"	625"	625 1/2"	626"	626 1/2"	627"	627 1/2"	628"	628 1/2"	629"	629 1/2"	630"	630 1/2"	631"	631 1/2"	632"	632 1
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D-ENGINEERING AND FIREPROOF CONSTRUCTION.

HOMAN & RODGERS,

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London Telephone, No. 1,029.

Telegrams: "Homan Rodgers, London." "Hamm, Manchester."

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IMPROVED FLAT * BRICK * FIREPROOF * FLOORS. NO THRUST.



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THE best as well as the *cheapest* Fireproof Floors yet introduced. Their small cost makes them specially suitable for Residential Flats, Offices, Chambers, Private Houses, Stables, Breweries, Maltings, Dock Warehouses, Factories, Warehouses, and Artizans' Dwellings.

They are constructed with purpose-made hard-burnt bricks, with specially moulded dovetail projections, forming a mechanical key to hold the plaster protecting the iron, and provided with wedge joints throughout, forming the most compact and solid floor known.

Experiments show a resistance to load and impact greater than furnished by the ordinary concrete floors. No thrust is transmitted to the walls, as in all arch construction, the walls being tied in and strengthened.

The floors are practically noiseless, the different densities of the concrete, brick and plaster, with the air space above, intercepting the sound vibrations.

The soffits of the bricks are specially prepared to key up the ceiling plaster. No laths or counter ceiling are necessary.

They are not affected by water, acids, or alkalis, and they may be fixed during the progress of building, thus dispensing with the use of internal scaffolding.

The concrete being tough instead of friable, the boarded finish may be nailed down without the use of sleeper joists. It is recommended to use an inch strip as a sleeper fillet. This will provide ventilation, and space for gas and water pipes.

The depth of the finished floor is six to nine inches only, and when the saving on this head is taken into account, the cost does not exceed that of the ordinary combustible timber floor of corresponding strength.

Full Details of Floor and Price List furnished on application.

ESTIMATES FREE ON RECEIPT OF TRACING.

Homan's Patent Girders, Rolled Joists, Cast Iron Columns, Roofs, Bridges,
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For Asylums, Workhouses, Hospitals, Schools, Hotels, Clubs, and Private Houses.

RANGES, KITCHENERS, GRILLS, BAINMARIS, STEAM BOILING PANS, AND HOT TABLES,
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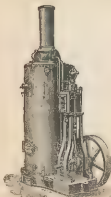
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VERTICAL STEAM ENGINES,

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POWER HOISTS & LIFTS.

Multiple, Telescopic, and Direct-Acting
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PATENT WEDGE SAFETY APPLIANCE
FOR HOIST CAGES,
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PATENT * SEMAPHORE
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Automatic Fire Extinguishing Apparatus for Mills, Factories,
Public Buildings, and Private Houses.

—PARTICULARS ON APPLICATION.—

PRICES, SPECIFICATIONS, AND DESIGNS SUPPLIED ON APPLICATION.

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IRON ROOFS, BUILDINGS, AND SHEDDING,

SUITABLE FOR

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ENGINEERS OR ARCHITECTS PLANS
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CATTLE SHEDDING, MANURE SHEDS,
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Steel & Iron Bridges for Passenger & Carriage Traffic.

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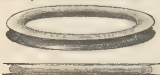
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Safe preservative of Rust on all kinds of Iron, Steel, and other Metals. Protection of Paint on Wood or Iron. Protection and preservation of Advertisement Bill's exposed to the weather. Finest material for producing Enamel Paints. Remarkable for its extraordinary durability.

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INDESTRUCTIBLE COMBINATION WASHERS.

FOR FLANG JOINTS OF STEAM AND WATER PIPES



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These Washers consist of soft metal sheeting, without any joint, grooved outside, containing in groove Asbestos or other packing material. They adapt themselves easily to any unevenness in the flanges and cannot blow out.

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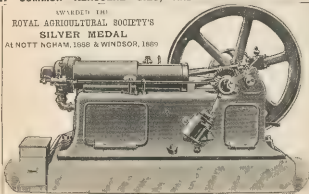
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PRIESTMAN'S OIL ENGINE.

(PRIESTMAN'S, HUMES & EVE'S PATENTS).

USES ONLY COMMON KEROSENE OILS, AND THEREFORE PERFECTLY SAFE.

NO COAL.
NO GAS.
NO STEAM.
NO BOILER.
NO DRIVER.
NO WATER
CONSUMED.



NO CHIMNEY.
NO SPARKS.
NO SMOKE.
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SPECIALLY SUITABLE FOR ELECTRIC LIGHTING.

PRINTING, PUMPING SAWING, THRESHING, CHAFF CUTTING, CORN CRUSHING, DRIVING LATHES, MILLS, CREAM SEPARATORS, Etc., Etc.

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FOR PASSENGERS,
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RELIANCE LIFTS.

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R. WAYGOOD & CO., HYDRAULIC & ENGINEERS.



HYDRAULIC PASSENGER LIFTS

may be constructed on either of two systems—"DIRECT-ACTING," in which the cage or car is pushed upward from beneath by a Ram or Piston; and "SUSPENDED," in which the Cage is raised from above by one or more suspending cables or chains.

R. WAYGOOD & CO. make both kinds in large numbers, and will be pleased to forward a pamphlet giving full description and comparison of the two systems on application.

WAYGOOD'S PATENT BALANCED DIRECT-ACTING LIFT

(As shown in Illustration)

Is the safest possible form of Lift, as the Cage always rests entirely on the Ram or Piston, and as there is no overhead gear of any sort, an accident is practically impossible; and this Lift is especially suitable for working in well-hole of staircase, as there is nothing to injure the appearance, or obstruct the light. This type of Lift has been adopted at St. Bartholomew's Hospital, Mr. Peter Robinson's, The International Club, N. E. Railway Hotel (York), and many other places.

One of these Lifts gained the Highest Award, with special mention, at the Melbourne Exhibition, 1888.

When, however, this kind of Lift is not suitable, on account of expense or difficulty in sinking the necessary well for cylinder, we recommend

WAYGOOD'S SUSPENDED LIFT

With Four Steel Wire Ropes and latest improved safety appliances, which are so arranged that if either of the four Ropes failed the descent of the Cage would be immediately arrested.

Lifts of this type may be seen at The Grand Hotel Charing Cross; Hotel Metropole, Monte Carlo; Burlington Hotel, Eastbourne; Alexandra Hotel, Hastings, and many other places.

In asking for Quotations, state Load to be raised, Height of Lift, Size of Cage, and Water Pressure available for working, either from street main or tank at top of building.

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Telegraphic Address—"WAYGOOD, LONDON"

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R. WAYGOOD & CO., LIFT MAKERS.

HAND * POWER * LIFTS
FOR
WAREHOUSES.

COAL AND DINNERS LIFTS
FOR
PRIVATE HOUSES, HOTELS, &c.

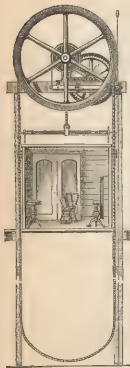
Invalid & Food Lifts
FOR
HOSPITALS.

WAREHOUSE CRANES.

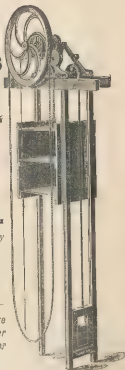
POWER * LIFTS.
*Driven by Belt from Shafting, or by
Gas or Steam Engine direct.*

*** IRON DOORS. ***

*In asking for Quotations for Lifts, give
load to be lifted, power available for
working, height of Lift & size of cage or
well-hole.*



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Head Offices and Works:

FALMOUTH RD., GT. DOVER ST., LONDON, S.E.

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TANGYES LIMITED,

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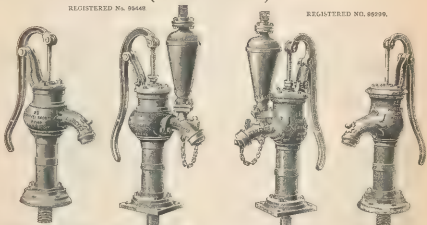
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NEW DESIGN (REGISTERED) HOUSE PUMPS.

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Swivel Spout Pump.

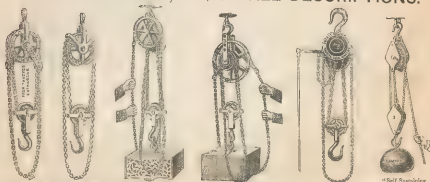
Swivel Spout Lift and Force Pump.

Horse Pump.

Swivel Spout Pump.

The above illustrations are taken from photos of four of the new series of Hand Pumps being introduced by Tangyes Limited to replace the old and ugly style of Horse Pump in general use. They combine whatever is useful in the latter with gracefulness of design, and the price remains the same. In the Swivel Spout Pump the spout is readily pulled round to any angle desired.

LIFTING BLOCKS, &c., OF ALL DESCRIPTIONS.



Small Block.

Medium Block.

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Self-acting Block.

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MAKERS OF STEAM ENGINES, BOILERS, PUMPS, CRANES, &c.; HYDRAULIC PRESSES, DRANKS, PUMPS, JACKS, PUNCHES, SHEARS, &c.
SCREW JACKS, RAIL BENDERS, JIM CROWS, STEAM VALVES & COCKS, RATCHET BRACES, STOCKS & DIES, &c., &c.

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— QUOTATIONS ON APPLICATION. —

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**ROLLED IRON JOISTS,
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I SASH, CASEMENT, & STEP PROTECTING IRON,
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GALVANIZED, CORRUGATED, AND FLAT SHEETS.
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Large Stocks of all Kinds of Rolled Iron and Steel.
ORDERS PROMPTLY EXECUTED.



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MARKS OF HIGH CLASS

STEAM LAUNDRY MACHINERY,
Lyon's Patent Steam Disinfecter, Machinery and Apparatus for the Treatment of Town's Refuse,
LICENSED MAKERS of the "CYCLE" GAS ENGINE (ATKINSON'S PATENT)
Engines, Pumps, Steam Boilers, Shafting, and all kinds of General Engineering Work.

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ESTABLISHED 1812
CHURCH ACRE IRON WORKS, GUILDFORD.

**IMPROVED SEWAGE MACHINERY,
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(UNDER DRAKE'S NEW PATENTS)

Being Improvements upon the Machinery designed by Mr. Drake.
Disinfecting Ovens, Drying Stoves, Ornamental Iron & Brass Work, Wrought Iron Casements, &c.

ARCHITECTS' DESIGNS WORKED TO.

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PATENT TRUSSED FIREPROOF FLOORS

Laid with LINDSAY'S PATENT PUMICE CONCRETE.

This is the Strongest, Lightest, and Cheapest Method of Fireproofing yet introduced. and is suitable for Hotels, Residential Chambers, Model Dwellings, &c.

Details of PATENT PUMICE CONCRETE FIREPROOF FLOORING of Steel or Iron Joists, interlaced with Trussed Rods, all Ironwork being entirely secured and protected from fire

THESE FLOORS ARE MADE IN ALL STRENGTHS FOR LOADS FROM 1 CWT. TO 20 CWT. PER FOOT SUPERFICIAL, AND ARE THOROUGHLY RELIABLE



Section through Grid



Section of Steel Bridge Deck

ADVANTAGES OF THE SYSTEM ARE AS FOLLOWS:—

All Grids &c. are entirely embedded in the Concrete, and secured from the action of the Fire. It is not at all expensive to erect, and is the only system of fireproofing that is so simple and so strong. It is the only system of fireproofing that is so simple and so strong. It is the only system of fireproofing that is so simple and so strong.

PUMICE CONCRETE is a fireproof material, lighter than any other, and is the only material that is so simple and so strong. It is the only material that is so simple and so strong.

DOMES AND SPIRES are also of simple and so strong. It is the only material that is so simple and so strong.

Large and small of all sizes and so strong. It is the only material that is so simple and so strong.

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Section of Steel Bridge Deck



THE COMPLETE CATALOGUE.

Section E.

FINISHING, DECORATION, FITTINGS, AND FURNITURE.

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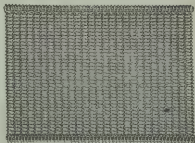
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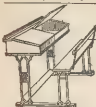
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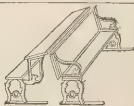
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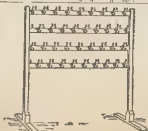
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Price 20s.



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Prices on application.



Reading Desk, No. 1101.
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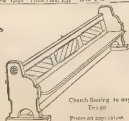
Pulpit, No. 1458. Pitch Pine, 43' -; Oak 45'.



Vanity Table, No. 1475.
Pitch Pine, 24' -; Oak, 34'.



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6 ft Long, Deal, 12' 6"; Pitch Pine, 13' 6"
9 " " 15' 6"; " 17'.



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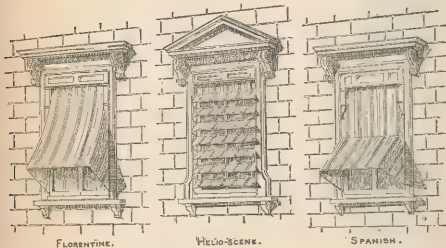
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New cloth to old fittings...	...	10d.	1/-
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SPANISH SUN BLIND.

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" " 3/9 3 " " "

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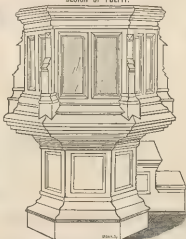


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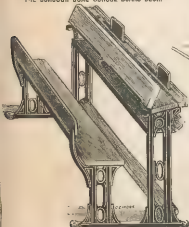


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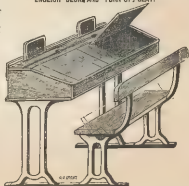
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and Part Agents, Battle Box, and Part, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831,

GAS LIGHTING APPARATUS.

✦ TELEPHONES ✦

WITH ALL THE LATEST IMPROVEMENTS.

Church Spires restored, and Chimney Shafts repaired.

EXPORT ORDERS RECEIVE SPECIAL ATTENTION.

G. A. WILLIAMS & SON,

24, Queen's Road, Bayswater, London, W.

for "BLINDS"

Estimates for which are specially based upon particulars and requirements



SPECIALTIE:
THE
"Universal"

This is the most Simple
and Economical
OUTSIDE BLIND extant.
It is particularly adapted for
PUBLIC BUILDINGS
such as
Hotels, Schools, &c.



SECTION

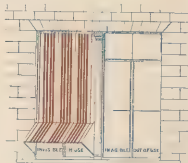
- L Lintel
- I Roller
- Cloth
- Top of Reveal
- A Head of Sash frame
- B Brickwork
- C Cloth of Blindwork
- D Sash
- R Reveal
- B Boxed iron out of use

SPECIALTIE:

THE

"Invisible."

ELEVATION.



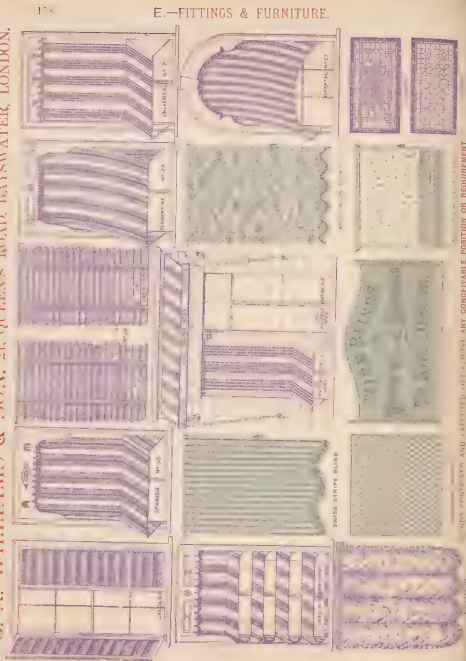
This blind has been invented
and arranged so that when
out of use it is out of sight
see illustration, and yet NO
Boxing is required which so
often interferes with both
architecture and light

Prices and Estimates from particulars in all cases

for
BLINDS
G. A. WILLIAMS & SON.

G. A. WILKINS & SON, 21, QUEEN'S ROAD, BAYSWATER, LONDON.

SPECIALISTS FOR BLINDS.



BLINDS PRINTED AND SELECTED ON A MOST ANY CONCEIVABLE POSITION OR REQUIREMENT

THE COMPLETE CATALOGUE.

Section F. GLAZING, STAINED GLASS, &c.

COMPRISING -
LEADED, PAINTED, AND STAINED GLASS, ROOF GLAZING, REFLECTING LIGHTS, &c.

FIRMS REPRESENTED IN THIS SECTION.

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BARTON & LUTWYCHE	150	GROVER & Co.	159	HILLIWELL, T. W.	150
EVANS, C. & Co. 151, 152, 153, 154,		HAYWARD BROTHERS, & ECKSTEIN 170, 170A		LASENEY, GEO.	170
155, 156, 157, 158					

NOTES REFERRING TO GOODS IN THIS SECTION.

Notes continued on page 160.

F—GLAZING, STAINED GLASS, ETC.

NOTES REFERRING TO GOODS IN THIS SECTION.

ESTABLISHED 1832.

BAILLIE & LUTWYCHE,
ARTISTS IN STAINED GLASS, & LEADED LIGHT MANUFACTURERS
187, WARDOUR STREET, LONDON, W.

Patentees and Sole Manufacturers of the

PATENT VITREOUS TRANSLUCID ENAMELLING ON GLASS.

BY this important invention the design is visible on both sides at same time, and is equally beautiful and effective by either day or artificial light. The design may be in one or more colours, on any description of glass, and in squares (at present) up to 5 feet 6 inches by 2 feet 10 inches. It is unequalled for Door Panels, Blinds, Screens, Ceilings, Facias, Wall Panels, Windows, &c.; in fact, for any purpose to which decorated Glass can be applied.

For Design Sheet and Prices see "Architects' Compendium," 1889. Samples on application at Show Rooms, where inspection is invited.

BAILLIE & LUTWYCHE, 187, Wardour Street, London, W.

FOUR GOLD MEDALS AWARDED.

**HELLIWELL'S
PATENT GLAZING**

WITHOUT PUTTY.

9, Victoria Street,
LONDON, S.W.



**HELLIWELL'S
PATENT ZINC ROOFING**

WITHOUT
EXTERNAL FASTENINGS OR SOLDER.

WORKS:
Brighouse, Yorkshire.

ON FOLLOWING PAGES ARE ILLUSTRATED

A few Designs of
ECCLESIASTICAL AND DOMESTIC
* * * STAINED GLASS,

Brilliant Cut Glass, Ceramic and Venetian Glass Mosaic,
Underglaze Tile Painting,
Raised Tiling and Decorative Faience.



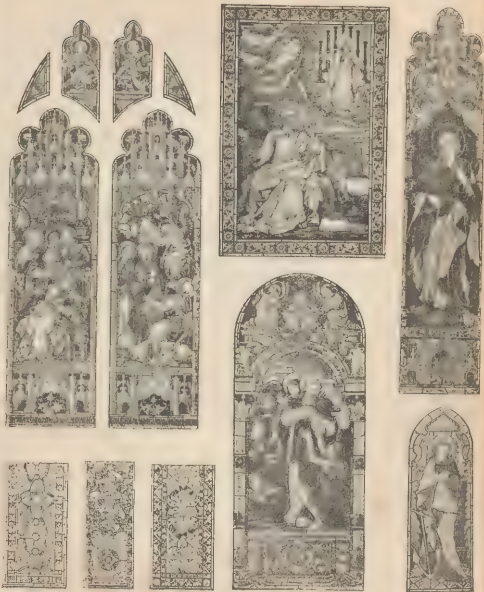
BEING EXAMPLES OF WORK EXECUTED BY

Charles Evans & Co.,

Designers and Workers in every description of * * *
* * * High Class Interior Decorations.

20, WARWICK STREET, REGENT STREET,
— LONDON, W. —

Ecclesiastical Stained Glass.



DESIGNS RED STAINED.

Each 1/2 inch to a foot.

FOR PRICES SEE PAGE 108

CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W.

21.2

Domestic Stained Glass.



DESIGNS HERE STEREO

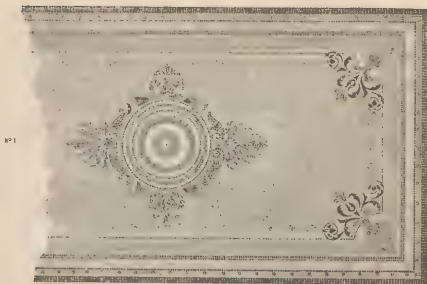
Scale 1 inch to 1 foot.

FOR PRICE SEE PAGE 140

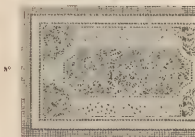
CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W.

Ceramic and Venetian Glass Mosaic.

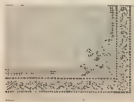
Ceramic Mosaic.



Ceramic Mosaic



Ceramic Mosaic



Venetian Glass Mosaic Keredos Panels.



Venetian Glass Mosaic.



DESIGNS REGISTERED.

Scale 1/4 in. to 1 foot.

FOR PRICES SEE PAGE 158.

CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W.

Painted and Raised Tiling and Decorative Faience.

Architectural Faience.



Dado in Raised and Enamelled Tiling.



N. 1

Painted Tile Picture Panel (underglazed process) With Raised and Enamelled Tile Dado and Surroundings.



Architectural and Decorative Faience



DESIGNS REGISTERED

Scale 1/4 in. to 1 foot does not apply to Capitals.

FOR PRICES SEE PAGE 105

CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W

Brilliant Cut Glass.



DESIGNS REGISTERED

Scale $\frac{1}{2}$ in. to 1 foot.

FOR PRICES SEE PAGE 105

CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W.

Brilliant Cut Glass.

Pat. C.—Designs E.



DESIGNS REGISTERED

MADE IN ENGLAND

FOR WHOLESALE & RETAIL

CHARLES EVANS & CO., 20, WARWICK STREET, REGENT STREET, LONDON, W.

PRICE LISTS of CHARLES EVANS & CO.'S SPECIALITIES.

STAINED GLASS.

THE accompanying pages 162 and 163, in which are illustrated a few of the numerous tree-houses of stained glass, are intended to give a general impression of the work, and to show the variety of designs and the quality of the materials. The quotations below will be found as moderate, consistently with good material and workmanship, as it is possible to make them. They are for windows containing not less than 10 square feet. The same designs introduced in a window of less dimensions would necessitate the glass and general detail being smaller, and so entail extra labour.

For the preparation of an exact estimate it is necessary that a rough sketch of shape of window should be forwarded, lines of each opening marked thereon; the subjects to be illustrated being noted, and an idea of the desired class of work being given.

In ordering windows and supplying dimensions, it is of the utmost importance that the exact shape should be stated. This can be done by cutting a piece of stout brown paper into the head of the opening (right size), giving the height from sill to extreme point of head, and also the width of light.

Prices of Painted Windows Executed in the Styles Illustrated on pages 162 and 163, are as follows:—

ECCELESIASTICAL.					DOMESTIC.				
No.	Design	per sq. ft.	6d.		No.	Design	per sq. ft.	6d.	
2	and 7	42	0		1	2 and 3	5	6	
3	(Exhibited, Royal Academy, 1885)	35	0		4	and 8	7	6	
4	.. .. .	15	6		5	7	16	8	
5	.. .. .	12	0		8	9	25	0	
6	.. .. .	18	0		10	11	40	0	
8	.. .. .	30	0						

Prices exclusive of cost of carriage, fixing, and wire-panes.

BRILLIANT CUT GLASS.

This brilliant cut glass is supplied for the use of Restaurants, Taverns, Public Houses, Offices, and all places where a brilliant and sparkling effect is required. The prices of designs Nos. 164 and 165 are as follows:—

SHEET C—DESIGN 1.					SHEET C—DESIGN 2.				
		On Observed	On Observed				On Observed	On Observed	
		1-in. Flat.	24-in. Sheet.				1-in. Flat.	24-in. Sheet.	
209, 215, 220, 224, 228, 231, 233, 236, 238, 239, 241, 242, 244		7/9	6/-		207, 211, 212, 216, 217, 218, 223, 223, 237		10/6	8/9	
208, 210, 214, 219, 221, 225, 227, 232, 234, 235, 243		9/-	7/3		213, 229, 240		11/6	9/9	
					226, 230		12/9	10/-	

Prices for levelling, per foot run, 1", 9d.; 1", 1s.; 1", 1s. 1/2.

The designs can be widened, lengthened, and otherwise adapted to any size and shape desired. All sizes under 12 inches taken as one foot in measuring quantities.

Special designs and estimates prepared to clients' instructions. A sketch of window must accompany each order. The smooth side of glass to be glazed out.

CERAMIC MOSAIC FOR PAVEMENTS.

Now, the most permanent of all Floor Mosaics, can be supplied to any design, colouring, and treatment. Coloured designs will be submitted with estimates for the laying of mosaic upon a level of 2 inches. The price of the mosaic is 1s. 6d. per square yard, including the cost of labour and materials. No. 3, 3d.; No. 3, 3d.

VENETIAN GLASS MOSAIC.

This inimitable mural decoration can be executed in gold and colours from 1s. to 1s. 6d. per square foot for ornament, and from 1s. 6d. to 1s. 10d. per square foot for the execution of a full picture. The quality of the mosaic is 1s. 6d. per square foot, including the cost of labour and materials. No. 1, 1s. 6d.; No. 1, 1s. 6d.

UNDERGLAZED PAINTED TILES AND RAISED AND ENAMELLED TILING.

Special coloured designs and estimates will be submitted upon application for every description of Tiling. The illustrated subject on page 165 is taken from one of a large number of Painted Tile Pictures created by Messrs. CHARLES EVANS & Co. in the Lobby Entrances of many Hotels and Towns in Great Britain and the British Colonies. The price of the mosaic is 1s. 6d. per square foot, including the cost of labour and materials. No. 1, 1s. 6d.; No. 1, 1s. 6d.

DECORATIVE FAIENCE.

Special coloured designs and estimates will be furnished for Architectural and Decorative Faience, upon receipt of particulars. A few designs are illustrated on page 165.

Painted Windows, Art Mosaics of all descriptions, Under and Overglaze Painted Tile Picture Panels, Mural Paintings, Monumental Designs, Carvings, and other high-class decorations from the Studio of MESSRS. CHARLES EVANS & Co., may be inspected in numerous cases, and for evidence throughout Great Britain and the British Colonies.

The success of their many works, the continued patronage of the most eminent authorities on Ecclesiastical and Domestic Decorative Art, and the fact that all their productions are executed under the personal supervision of Mr. CHARLES EVANS, may fairly be regarded as guarantees of the artistic quality of their productions.

CHARLES EVANS & Co., 20, WARWICK STREET, REGENT STREET, LONDON, W.

F-GLAZING, STAINED GLASS, ETC.

Telegraphic Address
"Adopted," London.

GROVER & CO., LIMITED.
ENGINEERS, MILLWRIGHTS, AND IRONFOUNDERS,
Britannia Works, Wharf Road, City Road, London, N.

SIMPLEX LEAD GLAZING.

THE COMMISSIONERS OF HER MAJESTY'S WORKS AND PUBLIC BUILDINGS.
HIS GRACE THE DUKE OF SUTHERLAND, K.G. HIS GRACE THE DUKE OF WESTMINSTER, K.G.
SIR BACHE CUNARD, BART. SIR HENRY BESSEMER. GOVERNMENT BOTANICAL GARDENS, MADRAS,
MESSRS. HUNTLEY & PALMER, OF READING. MESSRS. J & J. COLMAN, OF NORWICH ETC, ETC.

OVER 500,000 SUPERFICIAL FEET IN USE ON 1,500 STRUCTURES,



FOR ROOFING CONSERVATORIES, SKYLIGHTS,
Etc.—Showing Seal-bars with Grooves to Carry down
the Moisture from Condensation.



SECTION OF PATENT
STRIP.



For 21 oz. Glass,
(Full run.)



FOR WALLS,
WINDOWS, Etc.

NO SPECIAL CONTRACT REQUIRED FOR ITS ADOPTION.

The simplest and most economical system for **Roof and Vertical Work** is **Conservatories, Vinerias, Hot-Houses, Garden Frames, Workshops, Manufactories, Mills, Weaving Sheds, Laundries, Swimming Baths, Stables, Agricultural Buildings, Temporary Huts, &c., and for Skylights anywhere.**

This System claims to afford the following advantages:—

1. It effects a saving of 90 per cent. of the usual maintenance and repairs outside, as **nothing but glass and lead is exposed to the atmosphere.**
 2. Repairs of accidental breakages can be readily effected, as there are **no fastenings or screws to remove at any time.**
 3. No putty is used, and no leakages arise from changes of temperature or vibration from any cause.
 4. The work is **Air-tight** (so necessary for forcing and fumigating purposes), **Water-tight, Wind-tight, and undestructible.**
 5. **There is no noise due to vibration from gales of wind.**
 6. It is **equally applicable to sloping Roofs and Vertical Walls or "Siding."**
 7. **The lead strips, which are the special feature of this System, can be fitted by any local firm or workmen.** They are fastened to the woodwork with $\frac{1}{2}$ inch copper nails, the angles of the Strips are payed with thick white lead paint before being drawn down on the glass, which is secured with a small wooden glazing tool (supplied with the strips).
- As a general rule 21 oz. glass, 15 in. wide, is recommended for Horticultural Work; for Skylights, $\frac{1}{2}$ in. rough rolled plate.

OUR PRESENT TRADE PRICES FOR THE LEAD STRIPS ARE:—

3d. per ft. run (subject), if for 21 oz. Sheet Glass 4d. per ft. run (subject), if for $\frac{1}{2}$ -in. Plate Glass.
(OTHER SIZES IN PROPORTION).

DELIVERED AT LONDON STATION. CARRIAGE FORWARD.

Cases are charged in Invoice at Cost Price. Two thirds of such charge will be allowed or refunded on Emptyies duly received carriage paid.

Special Quotations for Quantities of 1,000 feet and upwards, to Specifications.

WHEN ORDERING PLEASE STATE—

1. **The LENGTHS of Strips required** (These are supplied up to 17 feet 6 inches if necessary)
 2. **The NUMBER of Strips to each length.**
 3. **The THICKNESS of Glass proposed to be used and whether to be lapped.**
- N.B. A wooden tool for drawing down the lead is always sent with the Strips free of charge, and, unless countermanded, Wrought Copper Nails for fastening the Strips, will be supplied; PRINTED INSTRUCTIONS are also sent, which should be carefully read, as they contain some hints which it is advisable to know, and act upon.

SOLE MANUFACTURERS OF THE PATENTED LEAD STRIPS. ANY QUANTITY SUPPLIED.

CONTRACTORS' COMPENDIUM.

W

F—GLAZING, STAINED GLASS, ETC.

HAYWARD BROTHERS & ECKSTEIN,

Telegraphic Address
"Hayward Brothers, London."

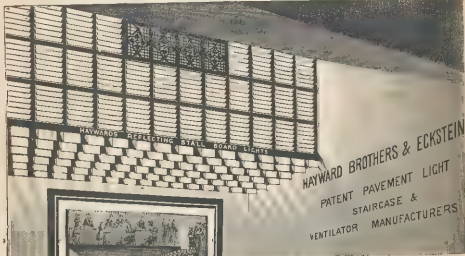
PATENT PAVEMENT LIGHT WORKS,
UNION STREET, BOROUGH, LONDON, S.E.

TEN MEDALS AWARDED.

HAYWARD'S PATENT "SEMI-PRISM" PAVEMENT LIGHTS

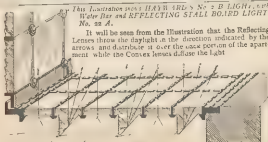
For Lighting Basements, Cellars, and Underground Apartments,

Are the BEST for directing daylight into Basements, and at the same time giving a good vertical and distributing light.



HAYWARD BROTHERS & ECKSTEIN
PATENT PAVEMENT LIGHT
STAIRCASE &
VENTILATOR MANUFACTURERS

HAYWARD'S Semi-Prism Pavement and Reflecting Stair Board Lights, view from below.



This Illustration shows HAYWARD'S No. 2 B LIGHT, a Water Tight and REFLECTING STAIR BOARD LIGHT No. 22 A.

It will be seen from the Illustration that the Reflecting Lenses throw the daylight in the direction indicated by the arrows, and distribute it over the exact portion of the apartment while the Convex lenses diffuse the light.

APPROXIMATE PRICES per foot super measured over all—"Stock sizes" about 15 per cent. less.

HAYWARD'S No. 1 Patent Semi-Prism Lights	3/6
HAYWARD'S No. 2 Patent "Up on Lens" Lights	7/6
HAYWARD'S No. 3 Convex Lens Lights	6/6
HAYWARD'S No. 4 Button Lens Lights	7/6
HAYWARD'S No. 5 Convex Lens Lights	6/6
HAYWARD'S No. 6 Rough Plate Lights	4/6

Parts of inches in length or depth are charged as full inches. Irregular shapes are charged as square, and all curved lines extra.

Use Stock Sizes, that is, Frames always kept on hand, and which can be glazed in two or three days on receipt of order.

SPECIAL QUOTATIONS FOR QUANTITIES AND ESTIMATES ON APPLICATION.

Also Prices for Mosaic, Granite Floor, and Tile Lights, Roadway Lights, Opening Stairs, and Vertical Stair Board Lights.

ARCHITECTS should clearly and distinctly specify "HAYWARD'S Patent Pavement Lights," mentioning the number of pattern, and initial letter of Section of glazing.

F—GLAZING, STAINED GLASS, ETC.

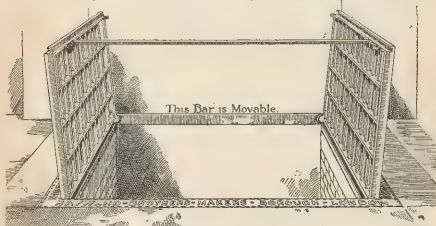
HAYWARD BROTHERS AND ECKSTEIN,

Telegraphic Address—
"Hayward Brothers, London" PATENT PAYEMENT LIGHT WORKS,

187, 189, 191 & 193, UNION STREET, BOROUGH, LONDON, S.E.

Hayward's Improved Glazed Cellar Flaps with Guttered Curb Frames.

No. 2, or "LONDON PATTERN."—4 inch by 3 inch LENSES.



No. 2 PATIERN Glazed Sect. K, with Water Bar at back showing Sect. of Gutter Curb to carry off Rain Water, &c.

This illustration shows a Pair of Flaps in a Guttered Curb Frame on three sides with movable bearing bar for clearance of bulky packages if required. A hole is drilled and tapped in lowest front corner to attach pipe to drain.

These Flaps are usually glazed, Section K C or D, to reduce the weight as compared with Hayward's No. 2 B Patent "Semi-Prism" Lights.

In order to reduce the cost of Cellar Flaps, we now keep regular "Stock Sizes" always on hand, as in the following Net Size List, which we can supply at a little over price of fixed lights, with an extra for fitting in Guttered Curb Frame as required.

~*~ SIZES ALWAYS IN STOCK. ~*~

Net Size of Flaps when laid together in Pairs—without Frame or Guttered Curb.

For over all length add $\frac{1}{2}$ inches—and over all depth add $\frac{1}{2}$ inches to net sizes under.

Net Size of Flaps	Lenses Back to Front.		ft. in.		ft. in.		ft. in.		ft. in.		ft. in.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.
6	3	6	4	11	3	11	4	11	4	8	5	11
7	3	6	4	11	3	11	4	11	4	8	5	11
8	3	6	4	11	3	11	4	11	4	8	5	11
9	3	6	4	11	3	11	4	11	4	8	5	11
10	3	6	4	11	3	11	4	11	4	8	5	11
11	3	6	4	11	3	11	4	11	4	8	5	11
12	3	6	4	11	3	11	4	11	4	8	5	11
	4	8	4	8	5	5	5	5	6	6	6	6

Net Size of Flaps.

ESTIMATES ON APPLICATION.

170A

F—GLAZING, STAINED GLASS, ETC.

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THE COMPLETE CATALOGUE.

Section G.

HOT WATER, WARMING, LIGHTING AND VENTILATING.

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NOTES REFERRING TO GOODS IN THIS SECTION.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

Telegrams—
"SYPHON STOVE,"
LONDON

S. CLARK & CO.,

PATENTEES AND MAKERS,
"SYPHON WORKS," PARK STREET, ISLINGTON, LONDON, N.

CLARK'S PATENT

THE "SYPHON" GAS HEATING STOVES, FOR USE WITHOUT A FLUE.

NO SMOKE, NO SMELL, NO DIRT OR TROUBLE, NO DANGER. ALL SULPHUROUS VAPOURS ARE CONDENSED INSIDE THE STOVES AND PASSED OFF AS A LIQUID INTO THE TRAY BENEATH.

THE MOST ECONOMICAL and EFFICIENT SYSTEM for HEATING PUBLIC HALLS, SCHOOLS, HOSPITAL WARDS, CORRIDORS, THEATRES, OFFICES, and all Public Buildings and Private Residences.

The following are the stock sizes and prices, complete, with a tray and extra glass chimney.



No. 1.



No. 2.



No. 3.



No. 4.



No. 5.

- No. 1.—For Heating and Lighting. Super Pillar Stove. Stands 30 in. high, consumes 5 feet of gas per hour when full on. Suitable for Offices, Landings, Passages, or small Conservatories. Price £7 10s.
- No. 2.—For Heating and Lighting. Stands 20 in. high, Argand Burner, consumes 3 feet of gas per hour when full on. Suitable for Halls, Corridors, Servants' Stairs or Bedrooms. Price £3 10s. With polished Copper Side Columns 15s extra.
- No. 3.—For Heating and Lighting. Stands 18 in. high, Argand Burner, consumes 2 feet of gas per hour when full on. Price £2 10s. With polished Copper Side Columns 10s extra.
- No. 4.—For Heating and Lighting. Stands 22 in. high, Argand Burner, consumes 4 feet of gas per hour when full on. Suitable for Entrances, Halls, Conservatories, large Rooms or Shops. Price £4; with polished Copper Side Columns 15s extra.

- No. 5.—For Heating only. Stands 30 in. high, Burner, consumes 5 feet of gas per hour. Suitable for Conservatory or rooms where heat only is required. Price £3 10s.
- No. 6.—Stable Stove, only larger. Stands 40 in. high, and of greater heating power, consumes 12 feet of gas per hour. Price £4 10s. With polished Copper Side Columns 15s extra.
- No. 7.—For Heating only. Stands 18 in. high, Burner, consumes 2 feet of gas per hour. Suitable for Conservatory or small room. Price £2 10s.
- No. 8.—For Heating and Lighting. This is a very powerful Stove, having two Argand Burners. Stands 30 in. high, consumes 6 feet of gas per hour when full on. Suitable for large Libraries, Billiard Rooms, Hospitals, Workshops, Schoolrooms, Greenhouses, &c. Price with ornamental Iron Top, £7 10s.; if Marbled slate Top, 15s extra. polished Copper Side Columns 15s extra.

MR D'OYLY CARTE, of the Savoy Theatre, writing of these Stoves, on August 7th, 1886 says:—"I used your Hygienic Gas Heating Stoves in this Theatre all last winter, and found them in every way most satisfactory. I think I must have had ten or a dozen of them in various parts of the Theatre, and in the very cold weather we had last winter they succeeded in warming the corridors, etc., admirably. Two of them were used to heat the Business Offices of the Theatre, and they fulfilled this object capably, while apparently in no way injuring the air in the Offices—a most important consideration."

ILLUSTRATED LISTS AND FULL PARTICULARS ON APPLICATION.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

MEDALS
1865.

AWARDED
1881.

HEATING APPARATUS

Inventor,
Patentee,
Manufacturer,

J. ATTWOOD.

Telegrams
"ATTWOODS."
STOURBRIDGE.

HOT-WATER ENGINEER AND IRONFOUNDER, STOURBRIDGE.

The ONLY ATTWOOD in the Trade

THE BEST JOINT.



OVER A MILLION SOLD.

SADDLE, TRENTHAM, and other

BOILERS.

HOT-WATER PIPES.

COILS, VALVES, &C. FOR COIL CASES, &C.

HEATING

CHURCHES, SCHOOLS,
MANSIONS, PUBLIC BUILDINGS,
GREENHOUSES, &c., &c

THE BEST COIL.



THOUSANDS
IN USE

HOT-WATER GOODS.

CATALOGUES

FREE.

WM. BAILY & SONS,

71, Gracechurch Street, London, E.C.,

MANUFACTURING IRONMONGERS, GAS & HOT WATER ENGINEERS, ART METAL WORKERS.

Hot Water and Steam Heating and Ventilating Apparatus for ASYLUMS, PUBLIC BUILDINGS, and INSTITUTIONS,
COLLEGES, SCHOOLS, CHURCHES, CONSERVATORIES and PRIVATE HOUSES.

HOT WATER SUPPLY. BOILERS. HEATERS. TANKS.

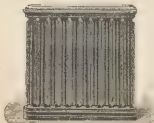
ARTISTIC GRATES.

DOG GRATES.

Slow Combustion and Hot Air Stoves.

GAS STOVES.

LOUVRE HEARTHES FOR
SMOKY CHIMNEYS.



IMPROVED HOT WATER RADIATOR.

CONTRACTORS' COMPENDIUM.

Z

HOT WATER COILS.

STEAM COILS.

RADIATORS.

COIL CASES.

Floor Gratings.

173

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

ESTABLISHED 1868.

HIGHEST AWARD SOUTH KENSINGTON, 1881.

Telegrams—
"Heating, Liverpool,"
and "Heating,
Birmingham."



OFFICES & WORKS—
Mill St., Liverpool.
BRANCH—
Ethel St., Birmingham

GIBBS' PATENT HOT WATER HEATING APPARATUS

FOR

PUBLIC BUILDINGS, CHURCHES, SCHOOLS, RAILWAY STATIONS,
MANSIONS, DWELLINGS, GLASS-HOUSES, WAREHOUSES,
SHOPS, OFFICES, DRYING ROOMS, POLICE CELLS, &c., &c., &c.

ESTIMATES AND PLANS GRATIS.

"RENTON GIBBS" PATENT FURNACE.

SMALL CONSUMPTION
OF FUEL.

HEAT IS GOT UP
QUICKLY.

CAN EASILY BE
REGULATED.

THE ACME OF
SIMPLICITY.



IS EASILY MANAGED.

IS PERFECTLY SAFE.

IS MOST
EFFICIENT,
ECONOMICAL, and
DURABLE.

NO SULPHUR FUMES.

A FEW OF MANY TESTIMONIALS.

Acton, Ryland, Sherrin, 7, 1881.

Sir, I write to say that the PATENT FURNACE you fixed in my house is a great success, as is also the one you fixed in Moreton Casket Church this month.

Your obedient Servant,
(Sir) V. M. CORSETT (Bart.)

MR. RENTON GIBBS, Liverpool.

Exeter Hill, Chester, March, 1884.

Sir,—Your "Heating Apparatus," which you put up in my house last year, answers capitally.

Yours faithfully,
D. SCOTLAND (Lt.-Colonel).

MR. RENTON GIBBS, Liverpool.

Ref via Care of Mr. Sheffield, January, 1884.

DEAR SIR,—The PATENT FURNACE you fixed to my offices works to my entire satisfaction.

I am, yours truly,
SAMUEL SMITH.

33, Edin. Cross, Princes Gate, Liverpool, Feb., 1885.

DEAR SIR,—I have much pleasure in testifying to the efficiency of the Apparatus you fixed here eighteen months ago, for heating portions of the house and small conservatory. I have never had the slightest trouble with it since your men left it, and with very little attention the heat can be regulated to a nicety.

Yours truly,

MR. GIBBS, Mill-street, T. H. W. WALKER (Architect).

RENTON GIBBS,
LIVERPOOL AND BIRMINGHAM.

G -HOT WATER, WARMING, LIGHTING, AND VENTILATING.

ESTABLISHED 1868.



RENTON GIBBS' HEATING AND VENTILATING APPARATUS.

FOR BUILDINGS OF EVERY DESCRIPTION.

ESTIMATES FREE.

"RENTON GIBBS" PATENT BOILER. THE ADVANTAGES OF THIS BOILER.

It has water fire Bars. Is the most perfect tubular type. The Acme of Simplicity, Safety, Efficiency, Economy, and Durability. Heat is got up quickly. Is easily managed.



LIST OF SOME OF THE PLACES WHERE THIS BOILER IS FIXED

The Right Hon. Earl of Strathmore, Strathmore Castle, Darlington
Eton Parish Church, Windsor
Sir H. Peel, Bryn-y-pys, Ruabon
Madame Adelaide Hall, Conway New Castle, Swansea
Messrs. Marshall, Sons & Co. Limited (the boiler) Gainsborough
West End Laundry, Tottenham, London
Easter Ross Union Poorhouse, Tain, Scotland
St. Mary's Convent, Drogheda, Ireland
St. Mary's Convent, Dundalk, Ireland
Parish Church, Ashbourne, Derbyshire
St. Mary's Parish Church, Blackburn, Lancashire
High School, Middleborough
Sugar Refining Works, Halifax, Nova Scotia
North Wales Counties Lunatic Asylum, Denbigh, North Wales, &c
Sharborough Road Board Schools, Birmingham, &c, &c

A FEW OF MANY TESTIMONIES.

BRITANNIA IRON WORKS,
Gainsborough, Sept. 16th, 1883.

DEAR SIR,—In reply to yours of the 4th inst., Mr. Renton Gibbs has heated for us our offices, large mess-room, engine and machine stores, and brick drying sheds in a most satisfactory manner, and we can in every way speak highly of his heating apparatus.

We have six of his "Patent Tubular Boilers" in work, with satisfactory results, and he has now some further work in hand for us.

We are,
Dear Sir,
Yours truly,
MARSHALL, SONS, & CO., Limited.

* There are now twelve at work.

BRYN-Y-PYS, RUABON, Dec 6th, 1883

DEAR SIR,—I have much pleasure in recommending your method of heating houses. The apparatus you fixed for me has worked well, and I shall soon apply to you for more piping, etc.
I am, yours faithfully,

(SIR) EDMUND PEEL
ASHBOURNE VICARAGE, DERBYSHIRE,
Sept. 16th, 1883.

DEAR SIR,—I have much pleasure in writing that, so far as we have tested your apparatus, it appears to be a marked success. Our church is exceptionally large, and yet it is efficiently warmed in a very short space of time after the apparatus is set to work. I have recommended your system to friends in the neighbourhood, and shall be glad to hear that it has been accepted in the case you mention. I shall be happy to show any gentleman the apparatus if desired.

Believe me, yours faithfully,
FRANCIS JOURDAIN, M.A., Vicar of Ashbourne.

RENTON GIBBS, LIVERPOOL AND BIRMINGHAM.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

RENTON GIBBS,
HEATING AND VENTILATING ENGINEER,
ST. JAMES' WORKS, MILL STREET, ETHEL STREET, off NEW STREET,
LIVERPOOL. AND BIRMINGHAM.

TELEGRAMS: "Heating, Liverpool," and "Heating, Birmingham."

HOW TO CHOOSE A HEATING APPARATUS



HE first and most important step is to ascertain the name of a firm who have the highest reputation for good work, and do not be misled by minor firms who profess to have a knowledge of the business, and offer to do the work cheap; for most assuredly these professions, though often made in good faith, are not verified by experience, but on the contrary, for want of scientific knowledge and proper resources, the work they carry out proves a total failure, to the great annoyance and disappointment of their customers, who are often left without heat in the coldest season of the year.

Heating is a science which requires years of study, combined with practical experience, to ensure success, and in no other line of business do we hear of so many failures. All who intend fitting up their premises with a Heating Apparatus should therefore be chiefly guided by the reputation of a good firm, and not, as is so often the case, being ruled by the lowest tender, which is the worst policy to pursue.

RENTON GIBBS, who has devoted twenty-two years' study to the improvement and perfection of the SMALL PIPE SYSTEM OF WARMING, and who has no other business, can guarantee that all work placed in his hands shall be executed in the best possible manner, and to the satisfaction of all concerned.

OVER 1,600 APPARATUSES IN SUCCESSFUL OPERATION.

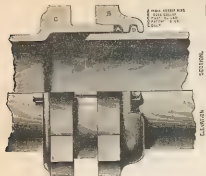
Plans, Estimates, and every information free on application.

References given to the Principal London and Provincial Architects.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

FOSTER AND PEARSON, BEESTON, NOTTS.

Telegraph Address—
PEARSON, BEESTON, NOTTS.



NEW PATENT PIPE JOINT

The spigot end of pipe has studs D, cast on which hold in groove of loose collar B, and so prevent the joint being forced apart under pressure—a point of great importance in heating dwelling-houses, &c.

MAKERS OF ALL DESCRIPTIONS OF
HOT WATER APPARATUS.

NEW PATENT PIPE JOINT,
Cannot give way under pressure.
EASILY FIXED. NEAT APPEARANCE.

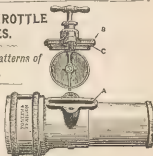
PATENT THROTTLE VALVES.

Hundreds of Patterns of
Valves.

22

FIRST PRIZES.

Established 1847.



ROBERT FOSTER & CO.,

40 to 52, MOSELEY STREET, BIRMINGHAM.



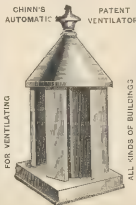
FOR VENTILATING ALL KINDS OF BUILDINGS



ARCHIMEDEAN CHIMNEY TOP

FOR CURING SMOKY CHIMNEYS

FOR VENTILATING



CHINN'S
AUTOMATIC

PATENT
VENTILATOR

ALL KINDS OF BUILDINGS



CHINN'S PATENT

SOIL PIPE VENTILATOR.

SOLE MAKERS OF
CHINN'S
PATENT AUTOMATIC
VENTILATORS.

Manufacturers of the Improved Revolving Archimedeal Screw Ventilators, Travelling Trunks, Baths, Wood and Iron Coal Vases, Trays, Galvanized Goods,
AND ALL KINDS OF SHEET METAL WORK SUITABLE FOR HOME AND FOREIGN MARKETS.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

HAYWARD BROTHERS & ECKSTEIN,

Telegraphic Address: "Hayward Brothers, London." VENTILATOR MANUFACTURERS,
UNION STREET, BOROUGH, LONDON, S.E.

VENTILATION.

"The simple forms of Ventilation rest on the principle of an outlet for the warmed air, and an inlet for fresh air."

HAYWARD'S SHERINGHAM INLET VENTILATOR,

For the introduction of FRESH AIR through an External Wall without a Draught.

QUALITY OF VENTILATOR.	Size of Box	A	C	B	D
R. or L. Hand.	9x3 ins.	9x6 ins.	13½x6 ins.	15x10 ins.	
	Front. 11½x5½.	11x8½.	16x8½.	19x14.	
No. 1 IRON—Plain	.. A1.. 4/6	C1.. 5/6	B1.. 7/6	D1.. 21/0	
" 6 JAPANESE BRONZE	.. A6.. 5/0	C6.. 6/6	B6.. 8/0	D6.. 25/0	
" 3 GALVANIZED	.. A3.. 5/6	C3.. 7/6	B3.. 9/6	D3.. 27/0	

Including Pulley Weight and Cord.



* Extra Heavy for Public Buildings

Requires Outside Air Brick to be "Complete."

IMPROVED MICA OUTLET VENTILATORS.

For the DISCHARGE of Heated and Vitiated Air from Rooms into the Smoke Flue.
OVER 500,000 IN USE.

No 3, Front, 11x7 inches.



QUALITY.	Size of Front	11x5	11x7	11x9	11x11	11x13
Size of Box	9x3	9x5	9x7	9x9	9x11	9x13
N. 1 Plain Iron	.. 3/0	4/6	6/9	8/3	12/0	
" 1 Japanese Bronze	.. 3/9	5/3	7/9	9/9	13/6	
" 1 Galvanized and Gold	.. 4/6	6/0	8/0	11/3	15/0	
" 3 Brass Trellis Front	.. 3/3	7/9	10/6	13/6	18/0	
" 3 Brass Hit & Miss Fronts	.. 15/0	18/9	24/0	34/6		

Back, 11x7.



HAYWARD'S SILK-FLAP OUTLET VENTILATORS.

NOISELESS.

For Prevention of Down Draught in Air-Extracting Shafts.

Size of Front	11½x11 in	11x8 in	11x11 in.	15½x11½ in.
Size of Box	9x3	9x5	9x9	13½x9
Plain Iron	.. 3/3	5/6	7/0	8/6
Japanese Bronze	.. 3/9	6/9	8/6	10/6



FRESH AIR MICA INLET VALVES.

IN GALVANIZED IRON.

For Ventilating Drains, by the Admission of a Current of Fresh Air.

For 3 inch Vertical Pipe, 2/0
" " " 10/0

For 3 inch Horizontal Pipe, 7/0
" " " 8/6



HAYWARD'S LOUVRE INLET & OUTLET VENTILATORS, HIT & MISS VENTILATORS, VERTICAL INLETS, or TOBIN'S TUBES, and all other kinds of Ventilators. Prices and particulars on application.

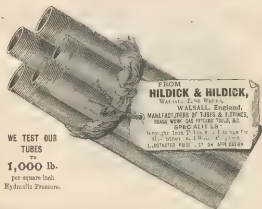
G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

HILDICK & HILDICK,
WALSALL TUBE WORKS, WALSALL.

MANUFACTURERS OF
WROUGHT IRON TUBES & FITTINGS
FOR
GAS, STEAM, WATER HEATING AND HYDRAULIC PURPOSES,
PLAIN, GALVANIZED OR ENAMELLED,
TUBES for ARTESIAN WELLS, SHIPBUILDING, ARCHITECTURAL & OTHER PURPOSES.

Telegraphic Address—

" HILDICK, WALSBALL "



WE TEST OUR
TUBES
TO
1,000 lb.
per square inch
Endsall Pressure



COILS FOR ICE, REFRIGERATING,
CHEMICAL, OR HEATING PURPOSES.

All our Coils are made from Tubes of special thickness, and tested when finished by Hydraulic Pressure to not less than 500 lbs. per square inch.

ILLUSTRATED PRICE LISTS AND DISCOUNTS ON APPLICATION.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

CHARLES P. KINNELL & COMPANY

To correspond—
"KINNELL, LONDON"

HOT WATER ENGINEERS,

OFFICES & WAREHOUSES—
65A, SOUTHWARK ST., S.E.

FACTORY—
4 & 6, GROVE, S.E.

WHARF—
31, BANKSIDE, S.E.

SOUTHWARK, LONDON, S.E.

Patentees and Manufacturers of the "Silver Medal Horse Shoe" Boiler, "Rochford's" Horizontal Tubular Saddle Boiler, &c.

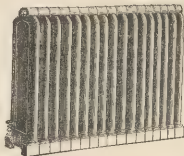
THE "SOUTHWARK" HOT WATER RADIATOR

Most powerful Radiator

Manufactured.

Each foot in length is
equal to 12-ft. 4 in.

pipe.



Height 36-in.

Projection 9-in.

Manufactured in any
length up to 6-ft.

Price 30s. per ft. (length).

THE "SOUTHWARK" RADIATOR has a direct waterway connecting all sections at top and bottom. The series of thin flat waterways present a larger heating surface than obtained in the same space by any other Radiator manufactured; it contains no more water, and has no small tubes complicating the circulation.

CHARLES P. KINNELL & COMPANY hold in their London Warehouses one of the largest stocks in the country of all classes of Hot Water Appliances, including:—

PLAIN AND ORNAMENTAL COILS, | ORNAMENTAL COIL CASES,
HOT WATER BOILERS, PIPES. | VALVES, CONNECTIONS, &c.

While maintaining the well known standard of quality of our Manufactures, our great facilities and extensive business enable us to compete on favourable terms with any house in the trade.

HOT WATER APPARATUS ERECTED COMPLETE.

Schemes of Heating Prepared and Estimates Furnished Free of Charge.

References given to London Architects for whom we have carried out large works. We give six to twelve months' guarantee with every Apparatus we erect.

Inspection of our Stock and Manufactures invited.
180

Illustrated Catalogues free on application.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

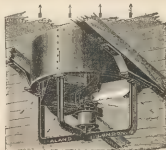
Telegraph & Address—
"Therefore, London."

Telephone, No. 1655.

THE "ALAND" PATENT AIR PROPELLER.

THE BEST AND CHEAPEST IN THE MARKET

FOR
VENTILATING,
COOLING,
DRYING,
HEATING,
EXHAUSTING,
&c.



FOR
REMOVING HEAT,
DUST,
FOUL AIR,
GASES,
VAPOURS,
&c.



THE "ALAND"

*stands unrivalled for Moving Large
Volumes of Air with a small expenditure
of power.*



Many Firms have substituted the ALAND Propeller for others with greater increased effect, and in some cases even smaller sized ALAND Propellers have given much better results.

IS EXTENSIVELY USED IN

LAUNDRIES, JUTE MILLS,
PRINT WORKS, DYE WORKS,
IRON WORKS, BLEACH WORKS,
PAPER MILLS, BREWERIES,
FLOUR MILLS, FACTORIES.



SUGAR REFINERIES,
BAKERIES, PUBLIC BUILDINGS,
WAREHOUSES, SCHOOLS,
TUNNELS, MINES,
HOTELS, THEATRES, &c., &c.

Licencees and Manufacturers,

E. JACOBS & CO.,
105, QUEEN VICTORIA STREET. LONDON, E.C.
PLANS, PRICES, AND PARTICULARS ON APPLICATION.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

NETTLEFOLD & SONS, 54, HIGH HOLBORN, LONDON, W.C.

PRICES OF ARNOTT'S CHIMNEY VENTILATORS.

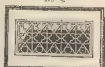
PLAIN FRONT.
Nos. 1 and 2.



MOULDED FRONT SHOWN WITH
TRELLIS
Nos. 3 and 4.



GOTHIC FRONT.
No. 5.



PLAIN FRONT.
WITH SILK FLAPS.
Nos. 6 and 7.



	No. 1. 11 x 8	No. 2. 16 x 9	No. 3. 11 x 8	No. 4. 16 x 10 1/2	No. 5. 10 x 6	No. 6. 11 x 8	No. 7. 16 x 9	No. 8. 12 x 8 1/2	No. 9. 16 x 10 1/2
Size of Fronts	11 x 8	16 x 9	11 x 8	16 x 10 1/2	10 x 6	11 x 8	16 x 9	12 x 8 1/2	16 x 10 1/2
Price without Set Screws	4 4	5 6	4 4	5 6	4 4	5 6	4 4	5 6	5 6
Plain Iron	5 0	7 9	5 8	9 4	4 4	7 3	10 0	8 9	11 0
Japanned Bronze	6 8	10 0	6 8	12 0	5 0	8 9	12 0	10 0	13 3
Japanned White, with Gold Lines	8 9	12 0	10 0	14 3	7 9	10 0	13 3	11 0	14 6
Brass Fronts	16 6	27 6	16 6	27 6	16 6	24 0	38 0	34 0	42 0
Brass Trellis Fronts for the above	3 4	5 8	4 6	7 9	3 4	5 6	3 4	5 6	5 6

Nos. 8 and 9 have Silk Flaps and Zinc Trellis as 6 and 7, and Moulded Fronts as 3 and 4.

Set Screws, 4d. each.

LARGE VENTILATORS FOR PUBLIC BUILDINGS, SCHOOLS, CHURCHES, HOSPITALS, &c., MADE TO ANY DIMENSIONS.

MICA - FLAP VENTILATORS (Outlet), (BOYLE'S PATENT.)

FOR THE DISCHARGE OF HEATED AND VITIATED AIR FROM ROOMS
Into Smoke Flues or other Shafts.

The Valves are composed of Mica, which is light, rigid, and non-corrosive, and are so sensitive that they open with the slightest appreciable motion of air, and immediately close against draughts, thus effectually preventing smoke from entering the room.



	Size of Front	11 x 5 in.*	11 x 7 in.*	11 x 9 in.	11 x 11 in.	16 x 11 in.
Quality	Size of Box	9 x 3	9 x 5 1/2	9 x 7 1/2	9 x 9 1/2	13 1/2 x 9 1/2
No. 1. Plain Iron		3/-	4/6	6/9	8/3	11/6
" 3. Brass Trellis Fronts		5/6	8/-	10/6	13/6	19/-

* Also Vertical Ventilators 5 x 11 in. and 7 x 11 in. at same prices.

Larger Sizes to order 18 x 18, 27 x 18, 36 x 18, 27 x 27, 36 x 27, 36 x 35 inches, out to out of Box.

SPECIAL QUOTATIONS FOR QUANTITIES

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

EDWIN OLDROYD,

Established 1848.]

Engineer,

Telephone No. 241.

CROWN * WORKS, * NEAR * CORN * EXCHANGE, * LEEDS.

HOT WATER HEATING, CALORIFICS, & VENTILATING

A FEW EXAMPLES OF APPARATA AT WORK:

N. E. Railway Carriage & Waggon Building Works,
and three Railway Workmen's Institutes, Offices,
&c., York

Central Higher Grade Board Schools, Leeds

Coliseum & Coliseum Buildings, Leeds

Corporation Fine Art Galleries, Leeds

Albert Hall & Mechanics' Institute, Leeds

Boys' New Science Schools, Leeds

Yorkshire College, Lecture Hall, and Museum, also

Weaving and Dyeing Departments, Leeds

Philosophical Hall and Museum, Leeds

N. E. Railway Audit Offices, Newcastle-on-Tyne

The Palace (Lord Bishop of Ripon), Ripon

Wesleyan Theological College, Headingley

Ackworth College, Pontefract

St. Michael's Church, Headingley, Leeds

St. Martin's Church, Potternewton, Leeds

Emanuel Church, Beech Grove, Leeds

Christ Church, High Harrogate

Well Church, near Bedale

Sherburn Church, Sherburn-in-Elmet

Newton Congregational Church, Leeds

Trinity Wesleyan Chapel and Schools, Harrogate

Wesleyan Chapel, Ilkley

Quarry Mount Board Schools, Leeds

Beckett Street Board Schools, Leeds

Beeston Board Schools, Leeds

Sweet Street West Board Schools, Leeds

Pottery Field Board Schools, Leeds

Stanningley Board Schools, near Leeds

Cloughton Board Schools, Birkenhead

Eccleshill Board Schools, near Bradford

Board Schools, Ripon

Private Residences.

Also upwards of 1,000 others, for every description of public and private buildings.

Maker of

HYDRAULIC LIFTS FOR PASSENGERS & GOODS.

Steam Power Lifts, Warehouse Hoists, Cranes, &c.

SUPERIOR MODERN STEAM ENGINES TO 60 HORSE POWER.

HYDRAULIC AND SCREW PRESSES, AIR PROPELLERS,

SHAFTING, DRUMS, & MILLWRIGHTS' WORK, &c.

For further information respecting Boilers, Coils, Pipes, Radiators, Fans, Valves, &c., apply as above.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

Only Silver Medal Awarded.



Manchester Royal Exchange
Tuesday and Friday
No. 14 Pillar, 1.30 to 3.0

J. H. PICKUP & Co.,

Telegraphic Address—
"PICKUP, BURY"

HEATING, VENTILATING, AND SANITARY
ENGINEERS, BURY, NEAR MANCHESTER.

Telephone—
No. 25, BURY.
No. 132, BOLTON.

BRANCH WORKS: SHIFNALL STREET, BOLTON.



FRONT VIEW.



BACK VIEW



PATENT FLUE OUTLETS, FOR CHIMNEY BREASTS, PLAIN OR ORNAMENTAL FRONTS

Our FLUE OUTLETS are specially adapted for taking away heated or vitiated air from any room into Smoke Flues or Air Shafts, and are so constructed that the slightest current is sufficient to open them.



OUTSIDE AIR GRIDS

OF EVERY DESCRIPTION,
Hinged, Plain or Ornamental, always in Stock.

ORNAMENTAL TURRETS, AND FOR CHURCHES, SCHOOLS, PUBLIC BUILDINGS.

These TURRETS are made from SPECIAL DESIGNS, and Constructed on the LATEST SCIENTIFIC PRINCIPLES.

They can be made to harmonise with any Style of Architecture.

ORNAMENTAL TURRETS FOR CHURCHES, CHAPELS, AND PUBLIC BUILDINGS
SPECIAL DESIGNS AND DRAWINGS ON APPLICATION.



AGENTS FOR THE CROSSLEY AIR PROPELLER.

Experienced Men sent to all parts to report on the Ventilating of every description of Building, and estimate the cost.

PRICES BY RETURN OF POST WHEN REQUIRED.



OUTLET FOR CHURCHES, CHAPELS, AND PUBLIC BUILDINGS.
We have numerous designs in these Outlets. Prices and Drawings on application.

Patent Exhaust Roof Outlet.

Our ROOF OUTLET is specially designed and constructed for taking away heated or vitiated air from any building without down draught.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

Guly Silver Medal Awarded



Manchester Royal Exchange
Tuesday and Friday
No. 14 Pillar. 1.00 to 3.00.

J. H. PICKUP & Co.,

Telegraphic Address—
"PICKUP, BURY."

HEATING, VENTILATING, AND SANITARY
ENGINEERS, BURY,
NEAR MANCHESTER

Telephone
No. 20 BURY
No. 183 BOLTON

BRANCH WORKS: SHIFNALL STREET, BOLTON.

SUNLIGHTS.

These SUNLIGHTS are made for Lighting every description of buildings, and are so arranged that the hot air from the rooms and the products of gas are carried straight off into shafts provided.



The inner tube carries away the products of combustion, and the large outer tube takes off the heated air.

A Sunlight, when properly fixed, is the best method of Lighting and Ventilating a School, Hall, or Public Building.

Where Sunlights are used for drawing off the heated air, and Tobin's Patent Tubes are fixed for introducing fresh air, a perfect and regular change takes place in the atmosphere of the room, and no draught is perceptible.



TUBE FOR ANGLES OF ROOMS.



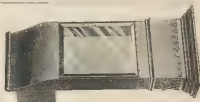
EVERY DESCRIPTION OF TOBIN'S PATENT VENTILATING TUBES MADE TO ORDER.

For the Introduction of Fresh Air into any kind of Building.

TUBES suitable for DRAWING ROOMS, DINING ROOMS, BED ROOMS, BILLIARD ROOMS, OFFICES, CHURCHES, SCHOOLS, &c.



TUBE, WITH
MIRROR.



Special attention paid to the VENTILATING OF CARD ROOMS, WEAVING SHEDS BLEACH WORKS, DRYING ROOMS, &c.

BEST OF WORKMANSHIP GUARANTEED.

Agents for the CROSSLEY AIR PROPELLER. Prices by return of post when required.

EXPERIENCED MEN SENT TO ALL PARTS TO REPORT ON THE VENTILATING OF EVERY DESCRIPTION OF BUILDING & ESTIMATE THE COST.

185

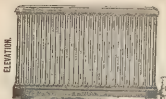
We are making a SPECIALLY DESIGNED SUNLIGHT.
PRICES AND DRAWINGS ON APPLICATION.

REFERENCES IF REQUIRED.

REFERENCES AND TESTIMONIALS IF REQUIRED.

TESTIMONIALS ON APPLICATION

HEAPS' Patent Hydro-Caloric Radiator and Inlet-Ventilator.
The most perfect water-jacketed incinerator, for Hospital and Family use.
Manufactured by the Heaps Patent Radiator and Ventilator Co., New York.



ADVANTAGES

[illegible]

MADE ANY SIZE, PRICE FROM £9.10s EACH

51, QUEEN VICTORIA STREET, and HOLYWELL ROW, FINSBURY, E.C. (late Cambridge Heath)

Sole Manufacturers of

MAUGHAN'S PATENT GEYSER,
Or Instantaneous Water Heater,
FOR BATHS, &c.

HIGHEST AWARDS—London, 1870; Cornwall, 1872; London, 1872; Amsterdam, 1883; Antwerp, 1885.

SPECIAL ADVANTAGES

Hot Water at any time, in any quantity, the instant required.

No Tubes or chambers to become choked.
No possibility of explosion from any cause.
Small Consumption of Gas (cost of Bath, 3d.)
No smell or annoyance from the Burner.

SAFETY, SIMPLICITY, DURABILITY, & ECONOMY

Upwards of Nine Thousand

have been supplied in all parts of the World.

Illustrated Catalogue of Patent Geysers, Sunray Stoves, Baths, &c. on application

NOTE.—It is requested that persons ordering Geyers will specify "MAUGHAN'S PATENT" to avoid impositions and discrepancies.

Also the "SUNRAY" CONDENSING STOVE (Burns Gas or Oil).

For HEATING OFFICES, ROOMS, ENTRANCE HALLS, CONSERVATORIES, &c., without Smoke or Smell.

REQUIRES NO FLUE.

— BATH MAKERS. GAS AND HOT WATER ENGINEERS. —

185A

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

ESTABLISHED 1778.

A. SEWARD AND CO., LANCASTER, HEATING AND SANITARY ENGINEERS,

PATENTERS AND MANUFACTURERS OF

HOT WATER AND STEAM HEATING APPARATUS.

SEWARD'S SYSTEM OF COMBINED HEATING AND VENTILATING

IS SPECIALLY ADAPTED FOR

CHURCHES, CHAPELS, SCHOOLS, PUBLIC BUILDINGS, PRIVATE HOUSES, &c.,
and has been commended by many eminent Architects and Engineers.

SEWARD'S PATENT TUBULAR SADDLE BOILER



Front View, as Set in Brickwork.

is one of the cheapest and most powerful Boilers yet introduced, having a larger heating surface than any other Boiler; it being in Sections can be made to any required size, and easily repaired, it is most economical in fuel and requires very little attention.



Back View

SEWARD AND WALTON'S PATENT STEAM HEATER

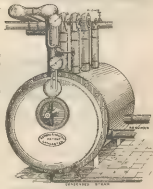
is specially designed for Buildings heated with Hot Water on the Low Pressure System, where Steam is available, it supersedes the ordinary Furnace Boiler, the water is rapidly heated with the expenditure of a minimum quantity of steam which in passing through the heater is kept separate from the circulating water, becomes thoroughly condensed and does not leave the heater until its temperature is reduced to about that of the water it has been employed in heating, so that no portion of the calorific power used is wasted.

This Heater is constructed on scientific principles; is most economical in working; requires no attention; has no moving parts to get out of order; is silent in action and takes up very little room.

ESTIMATES AND PLANS FURNISHED FOR HEATING AND VENTILATING
ALL KINDS OF PUBLIC AND PRIVATE BUILDINGS, GLASS HOUSES, &c.

EFFICIENCY GUARANTEED

REFERENCES ON APPLICATION.



SECTIONAL VIEW

A. SEWARD AND CO.,
MARKET STREET AND SUN STREET, LANCASTER.

1858

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

PETERS, BARTSCH & CO., DERBY.

Telegraphic Address—
"PETERS, DERBY"

[Registered.]

CARBOTRON.

[Registered.]

The marvellous fuel burning without Smoke, Soot or Dust.



CARBOTRON PORTABLE HEATING & COOKING STOVES.

Requiring no Chimney, can be carried about whilst burning. Suitable for Halls, Corridors, Shops, Workrooms, Greenhouses, Conservatories, Stables, Coach Houses, Harness Rooms, Cellars, Etc., Etc.

"These Stoves are particularly adapted for effectually airing and drying new buildings, as they can be left day and night with once charging."

CARBOTRON SELF-HEATING BOX IRONS.

For Tailors, Dressmakers, Landries, Households, Etc., Etc. Uniform heat for any length of time. No loss of time in cleaning, no waiting for heating iron.



CERTIFICATE OF MERIT from the SANITARY INSTITUTE

PATENT CHEMICAL HEAT RETAINERS.

Foot Warmers, Carriage Warmers, Bed Hand and Muff Warmers, giving out an agreeable and even heat for a remarkably long time, from four to sixteen and even twenty hours (according to size).



See also Carb. Stoves, p. 122. ANTI-SCALD, p. 143. IMPERFORABLE COMBINATION WASHERS, p. 143.



JOHN SPENCER,
GLOBE TUBE WORKS,
WEDNESBURY,
And 14, Great St. Thomas Apostle, London, E.C.

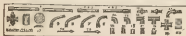
Telegraphic Address—"TUBES, WEDNESBURY." "TUBES, LONDON."

GOLD MEDAL, MELBOURNE, 1881.

Late
WHITEHOUSE & Co. Ltd.,
Established 1847.



TUBES



Patent Welded Tubes and Fittings for Gas, Steam, and Water; Galvanised. White Enamelled inside, or coated with Dr. Smith's Composition. Hydraulic Tubes, Boiler Tubes, and Fittings. Core Bars, Telegraph Poles. Gas Fitters' Tools. Well and Boring Tubes, Tubes and Cylinders for Compressed Air. Coils to 6 ft. diameter. Tubes kept in Stock up to 6 in. diameter.

G—HOT WATER, WARMING, LIGHTING, AND VENTILATING.

IMPROVED

HEATING APPARATUS.



EXPANSION JOINT

J. & W. WOOD,
HOT WATER ENGINEERS,



BIRMINGHAM STREET FOUNDRY, STOURBRIDGE.

Manufacturers of IMPROVED EXPANSION JOINT HOT WATER PIPES, COILS, VALVES,
BOILERS, and other HOT WATER SPECIALITIES.

Estimates for Heating Churches, Greenhouses, Public Buildings, &c., on the most approved principle, free.

AWARDED GOLD MEDAL, INTERNATIONAL EXHIBITION, CALCUTTA, 1884.

Awarded 21 Gold and Silver Medals and Diplomas Fifty Thousand Testimonials and Recommendations for Successful Application.

ESTABLISHED
1858.



New Patent Archimedes Screw Ventilator for Drawing and Throwing



New Patent Archimedes Screw Ventilator for Drawing and Throwing



James Howorth's New Patent Horizontal Screw Lubricator and B over, fixed on to the Wall, with Flow Square Terminal, and Self Closing Valve



James Howorth's New Patent Horizontal Screw Ventilator, for Drawing and Throwing



James Howorth's New Patent Horizontal Screw Ventilator, for Drawing and Throwing

JAMES HOWORTH & Co., Consulting and Ventilation Engineers, Victoria Works, Farnworth, nr. Bolton, & Manchester, England.

NOTES REFERRING TO GOODS IN THIS SECTION.

G-HOT WATER, WARMING, LIGHTING, AND VENTILATING.

NOTES REFERRING TO GOODS IN THIS SECTION.

THE COMPLETE CATALOGUE.

Section II. IRONMONGERY & HARDWARE.

COMPREHENDING—

LOCKS, STOVES, GRATES, KITCHEN DOOR FURNITURE, FIREPROOF SAFES, DOORS, &c.

FIRMS REPRESENTED IN THIS SECTION.

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NOTES REFERRING TO GOODS IN THIS SECTION.

H—IRONMONGERY AND HARDWARE.

NOTES REFERRING TO GOODS IN THIS SECTION.

* Robert Adams, London

PATENT DOOR SPRINGS FOR SWING AND REBATED DOORS

[illegible]

power as required, and being made by vacuum formed and are adapted to a variety of work. The following Vactor Spring Double Action Spring Hinge and Spring pistons will suit among winds, yet justify to child's economy, while the Double Action Spring is recommended as the best all around Spring Hinge made, with a five check action makes it suitable also for single use on doors; it will close into a step frame with absolute silence. Each of the following Springs have likewise some special feature and advantage, and embrace the most valuable features known; they

No. 176. Double Action with Check

[illegible]

The "King" "Victor" Double Action Floor Spring Hinge for saving doors is recommended for lighter doors and all good work. No. 144 with Check, as shown for ordinary doors, each \$2.50. No. 144, Do. Do. for heavy doors, each 3.75. No. 145, without Check, for ordinary and extra doors, each 42. No. 146, Do. Do. for heavy doors, each 58. Comp. est. with patent Adjustable Shoe and Top Centre. Special Co. and Cases extra.

The "Jesse" pattern "Victor" Sledge Anchor is a door spring in the form of a bar that can be fixed in any desired door.
No. 1, 1/2" wide, Chrome and Blue for ordinary doors, each 35¢.
No. 2, 1/2" wide, Do. Do. for heavy doors, each .45¢.
Ball Hinges for Top Centres are not included.
Special Oil and Grease extra.

No. 161, Single Action with
Check.

Diagram of the door assembly. The door is shown in a closed position, hinged to the frame. The hinge mechanism is labeled 'D' and 'DOOR'. The frame is labeled 'FRAME' and 'A'.

Supersedes all the noisy and so-called cheap Presumatic varietals being made, stronger, more readily applied, applicable inside and outside, or on either the right or left hand of the door, without change of fittings. This Spring can be found where others cannot, and is suitable for narrow transoms, requires only 1 inch space back of Hinge Line, opens wider than others, easily fixed, most durable, will close at any desired speed, is made to suit any sized door, and can be taken away when removing to other windows.

No. 183, for doors not exceeding 2 ft. 6 in. wide X 3 1/2 in.	20
No. 184, for doors not exceeding 2 ft. 8 in. wide X 4 in.	25
No. 185, for doors not exceeding 3 ft. 6 in. wide X 3 1/2 in.	30
No. 186, for doors not exceeding 4 ft. 0 in. wide X 4 in.	35

Specialties—Fanlight Openers Ventilating Gear for Lantern Lights, Conservatories, &c., Door Spring Hinges Buffers and Stops, Casement Bolts Stops and Fasteners Sash Fasteners Climax Reversible Window Fittings, Sash Centres and Bolts Gussie Side Draught Preventers for Fanlights, Collapsible Gate Hinge Fittings, Quays a Patent Sliding Window Bars, Rickwood's Patent Slate Fasteners, Lifts, and other Patented Specialties for the Building Trade and allied Trades.

London Agent for the NORTON DOOR CHECK AND SPRING.

ADAMS' BUILDING TRADES EMPORIUM, 67, Newington Causeway, London, S.E.
CONTRACTORS' COMPENDIUM. B B 189

H-IRONMONGERY AND HARDWARE.

Telegraphic Address—
Robert Adams, London.

ROBERT ADAMS' PATENTS.

"CLIMAX" PATENT REVERSIBLE WINDOW SYSTEM



Offers a ready and inexpensive solution to the numerous difficult problems of

How to Make a Window Reversible

(to enable a person to clean the outside of the glass while standing within the room) without interfering with the arrangement of the sliding sashes, or detracting from the normal appearance of the window. This system is applicable to new as also to existing windows at a very moderate cost, so that there is no reason why every window should not be fitted with this invention, and thus avoid the great annual loss of life entailed by persons standing on window sills to clean the outside of the glass.

For Sashes up to 4 ft. deep 2/5 per set per each,
" over " 4/6 " "

SECOND QUALITY.

For Sashes up to 4 ft. 2. per set per each,
" over 3/6 " "



TRIUMPH PATENT SASH FASTENER, No. 51.

Cannot be opened from the outside by any instrument, although the sashes may be left open sash up for years, even between the nearest rivals, or if they cannot be brought level. It overcomes all difficulties in closing and securely locking the window. This fastener has already prevented many burglaries.



This Fastener also prevents the sashes rattling, and excludes dust; to fasten the window it is only necessary to engage the lever with one hand.

For Sashes Polished Brass .. 2/5 2/5 2/5 2/5 each.
Bronzed Iron .. 1/5 1/4 1/5 1/5 "



"TRIUMPH" PATENT CASEMENT FASTENER.

Not only secures the Casement, but forces it firmly into the rebate, and, being self-latching, is not capable of being undone from the outside, thus giving the greatest security. The action is simple, and cannot get out of order.

In Polished Brass 2/5, 2/5, 4/- each, according to design



"RELIABLE" PATENT WATER BAR.

With improvements in guard against injury when stepped upon.

15 24 36 48 60 72 84
32 14/6 20/- 24/6 27/6 32/6 each
Or without Improvements

11/6 12/6 14/- 15/- 16/- 17/- "

Other Patterns made for Casements opening out.

Draughts Strips and Excluders for every Requirement.

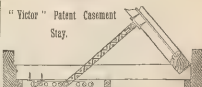
Although comparatively speaking new has nevertheless met with extraordinary success on account of its simplicity, strength, durability, and safety.

Opening Inwards.

Bronzed Iron. Brass.
No. 204, 10 in. 2. each. No. 205, 10 in. 2 1/2 each.
No. 206, 12 in. 2 1/4 " " No. 207, 12 in. 4/6 "

Opening Outwards.

Bronzed Iron. Brass.
No. 193, 10 in. 2. each. No. 191, 10 in. 2 1/2 each.
No. 194, 12 in. 2 1/4 " " No. 192, 12 in. 4/6 "



Attention is called to our various Improved Specialities of the Trade, parts and Prices of which will be forwarded on application.

Agent for QUAYLE'S PATENT SLIDING WINDOW PROTECTION BARS, RICKWOOD'S PATENT SLATE FASTENERS, dispensing with the unsatisfactory Lead and other clips, NORTON DOOR CHECK & SPRING CLIP.

ADAMS' BUILDING TRADES EMPORIUM, 67, Newington Causeway, London, S.E.

B B 2

191

H—IRONMONGERY AND HARDWARE.

ALBION IRON CO.,

Temporary Address
"ALBION" LONDON

ALBION WAREHOUSE, 181, UPPER THAMES STREET, LONDON.

IRONFOUNDERS,
MERCHANTS,
AND MANUFACTURERS

OF
BATHS, BOILERS, CISTERNS,
COLUMNS, FINIALS, GULLY
GRATES, GUTTERS,
HOT WATER FITTINGS,
KITCHENERS, PORTABLE
STOVES, REGISTER STOVES,
SASH WEIGHTS,
STANCHIONS AND
WINDOW SASHES.

The "HOUSEWIFE
Close-fire KITCHEN
RANGE" is supplied
with a very Large Oven,
Narrow Sham Side, with
space at back to take
Wrought Saddle Boiler

Can be supplied with
TWO OVENS. Prices
of this on application



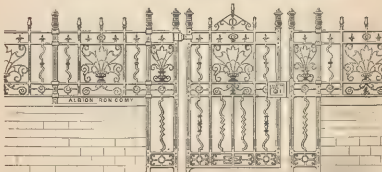
IMPROVEMENTS
CLAIMED ARE .

Rods to Dampers,
Fire Cover to tip-up,
Plate Rack with Self-
Acting Brackets.

Hot Plate 26in high
by 18in deep, and cov-
ers 23 in. high, with
Bright Fittings complete
as shown

36in 42in
Oven & Sham 86/- 94/-
Oven & Cast
Side Boiler 93/- 99/-
Wrought high
pressure
Boiler to fit
above .. 19/6 23/6

ALBION, No. 175.



Iron Coping
to fit any de-
sign of Rail-
ing, 7/6 to
2/- per foot.

Illustrated
Catalogue sent
on receipt of
application,
and Questions
given for any
kind of Builders
IRON WORK.

ALBION IRON COMPANY have a very large and well selected stock of "VILLA" RAILINGS similar in dimensions
to the above, which average from 3/- to 4/- per ft., prepared ready to fix to Stone Coping. No. 175 design shown is 4/6 per foot. J

Owing to the fluctuations of the Iron Market prices are subject to revision without notice

H IRONMONGERY AND HARDWARE.

BARNARD, BISHOP & BARNARDS,

Telegraphic Addresses:
"BARNARDS, NORWICH"
"BARNARDS, LONDON."

NORFOLK IRONWORKS, NORWICH.

London Show Rooms: 91, 93 & 95, QUEEN VICTORIA STREET, E.C.

Original Manufacturers of the Registered Slow Combustion Stoves known as the "COUNTRY PARSON'S FIRE GRATES," or "NORWICH STOVES." Our New List containing all the Latest Patterns is now ready, and will be sent Post Free upon application.

LATEST NOVELTY:

"THE NORFOLK PATENT STOVE."



(Elevation and section of which we give below.)

THE advantage of this stove over all others yet introduced consists of the fact that while constructed purely upon slow combustion principles, yet, when necessary, the combustion can be accelerated by means of the perforated air brick at the bottom, and the hot and miss ventilator. Another advantage claimed for this stove, is that of its smoke-consuming properties. This has been the burning question amongst Architects for many years. We think that with open stoves the total consumption of smoke is admitted by all to be a practical impossibility but we claim for this stove that by means of the jarque form of fire basket, the smoke as far as possible is consumed and the remainder is robbed of its deleterious products. This form of fire basket can be adapted to all our stoves, with a few exceptions.



Also Manufacturers of Carved Wood Mantels, Coal Vases, Tile Slabs and Hearths in every variety, Curbs, Fire Irons and Rests.

Artistic Wrought Iron Work, of which we make a speciality for Architectural, Decorative, and Domestic purposes. The gates exhibited at the Great Exhibition of 1851, and purchased by the county for the principal entrance at Sandringham Park, were manufactured by us entirely of hand-forged iron.

KITCHEN RANGES, HOT WATER APPARATUS, AND STABLE FITTINGS. ARCHITECTS' OWN DESIGNS AND SPECIFICATIONS FAITHFULLY CARRIED OUT.

H-IRONMONGERY AND HARDWARE.

Established 200 years.

J-B & SONS,
High-Class Ironmongery.

PRIZE MEDAL FOR LOCKS
AND SUPERIOR IRONMONGERY.

J. B. BOOBBYER & SONS,

13 & 14, Stanhope Street,
14, Blackmoor Street,

Newcastle Street, London, W.C.

Fifteen minutes' from Charing Cross, Waterloo, Ludgate, and Farringdon Street Stations. Five minutes' from Temple Station.

RIM LOCKS.



- | | | | | |
|----------|---|-------|-------|-------------|
| No. 100. | Boobyer & Sons' All Brass Rim Locks, plain, with Gun Metal Keys | 6-in. | 7-in. | 10, 6 each. |
| " 101. | Reeded Case All Brass Rim Locks | 7 1/2 | 14 | " |
| " 102. | 2-Lever Iron Rim Locks, Brass Bolts | 3 1/2 | 5 1/2 | " |

MORTISE LOCKS.

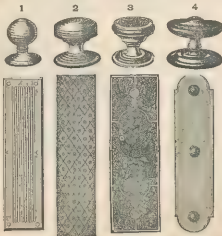


- | | | | | |
|----------|---|-------|-------|---|
| No. 200. | Boobyer & Sons' 4-Lever, best, with Gun Metal Bolts | 7 1/2 | 9 1/2 | " |
| " 201. | Boobyer & Sons' 2-Lever, with Brass Bolts | 5 1/2 | 7 1/2 | " |
| " 202. | Boobyer & Sons' 2-Lever of lighter make, with Brass Bolts | 3 1/2 | 5 1/2 | " |

Also Springless Rim and Mortise Locks of improved principle, from 4/6 each.

Locks to Differ, with Master Keys, to order.

Cabinet Locks.—Cupboard, Till, Wardrobe, Sliding Door *en suite*, or to differ; 30 or more *suites* on stock.



	Pitts' or Gibbes' Spindle.	Mace's Spindle.	Finger Plates.	
			each.	Solid.
	per set.	per set.	each.	each.
1	5/6	2/6	9d. 1/3	1/9
2	6/-	...	1/9	...
3	7/-	...	2/-	...
4	8/-	...	3/-	...

A splendid selection of Brass Furniture and Finger Plates, 20 or more designs on stock.

H—IRONMONGERY AND HARDWARE.

Established 200 years.

J-B & SONS,
High-Class Ironmongery.

PRIZE MEDAL FOR LOCKS
AND SUPPLY OF IRONMONGERY.

J. F. BOOBBYER & SONS,

13 & 14, Stanhope Street, { Newcastle Street, London, W.C.
14, Blackmoor Street,

Fifteen minutes' from Charing Cross, Waterloo, Ludgate, and Farringdon Street Stations Five minutes' from Temple Station

FRENCH CASEMENT BOLTS.



- | | |
|---|---|
| No. 20. All Iron 7-ft. 2/6 each. | No. 22. All Brass from 2/- foot. |
| " 21. Iron with Brass Knob " 5/- " | " 23. Best ditto " 3/6 " |
- Also Espagnolette Bolts.

CASEMENT STAYS.



- | | |
|--|--|
| No. 32. Double Jointed Pin Casement Stays, Brass, strong 22-inch. | No. 30. Strong Screw down, solid Brass 27/- per doz. |
| " 33. Ditto. ditto. Gun Metal 25/- " | No. 31. Extra Strong ditto ... 54/- " |
| | " 36/- " |

CASEMENT FASTENERS.



- | | |
|--|---|
| No. 40. Polished Brass or Bronzed ... 9/- per doz. | No. 42. Brass, Lacquered or Bronzed ... 15/- per doz. |
| " 41. Iron, Malleable 4/6 " | " 43. Iron, Malleable, plain ... 4, 6 " |



SASH FASTENERS.

- Hopkinson's Patent Guarded Arm and Reeded Knob 7/6 — 20/- per dozen.
A variety of other Patents on stock: Stanley, Albert, Meakins.

Stable Fittings.

Sash Lines.—Hemp, Flax, Cat-Gut, Steel Ribbon, Wire Rope, Copper Chain.

Hinges.—No. 50. Brass Butt with Double Steel Washers—
3-in. 2/-; 3½-in. 2/6; 4-in. 3/6; 4½-in. 4/9; 5-in. 6/6; 6-in. 9/6 per pair.

Floor Springs.—No. 60. Warranted, 28/- each. *Door Checks and Springs of all kinds.*

Fanlight Gear.—No. 70. Preston's, Beanland's, Leggott's, with Cords
from 6/6, 2/9, 3/- each respectively.

No. 71. Leggott's, with winch handle from 16/- each.

No. 72. Eclipse Action do. 11/- "

Models showing action.

Ventilators.—Arnott's, Boyle's, Curral's, Sherringham's.

Baldwin's Butts

ARE MADE ONLY BY



200



933



564

BALDWIN, SON & CO., Ltd.,
STOURPORT,

Also Broad Butts 200 and 564 of all Sizes.

Parliament Hinges, Skew Butts, and Cast-Iron Hinges
OF ALL DESCRIPTIONS.

Buyers are earnestly requested to see that the name **BALDWIN**, in addition to the quality number, is cast on all the Butts they purchase—**NONE OTHERS ARE GENUINE.** These numbers were **ORIGINALLY ADOPTED BY B. S. & CO.** to distinguish the different qualities, but since these Butts have obtained favour with consumers, the numbers have been copied by other makers. They are now registered as their

TRADE MARK

BALDWIN
200

BALDWIN
333

BALDWIN
564

MANUFACTURERS also of the Improved Cast Tinned Kitchen Furniture—
Saucepan Covers are now made stamped from One sheet of Steel; also of
an Improved White Enamelled Cast-Iron Kitchen Furniture; and of the
New Mottled Cast-Iron Enamelled Holloware in all their various branches;
Improved Box, Flanch, and Portable Coffee Mills; Door Knockers, Scrapers,
Porters, Hat, Coat and Umbrella Stands, and Carpenters' and Builders'
General Ironmongery.

LONDON OFFICE: No. 23, HOLBORN VIADUCT, E.C.

H—IRONMONGERY AND HARDWARE.

J. H. BUTLER,

BELL WORKS, BELL STREET, WOLVERHAMPTON,

Established 1828.

MANUFACTURER AND WHOLESALE IRONMONGER.

INVENTOR, PATENTEE, AND MANUFACTURER OF

BUTLER'S PATENT CHEST
HANDLES.



UNION CHEST HANDLES.



MANUFACTURER OF ALL KINDS OF

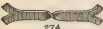
WROUGHT BALE TIES.



272.

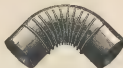


273.



274.

STOVE PIPE AND ELBOWS.



MANUFACTURER OF

Angle Brackets	Coffin Rings and Saupes	Fencing Staples	Pipe Hooks	Spout Brackets
Ash Pit Locks	Curved Rings	Fencing Clips	" Nails	Sash Centres
" Latches	Chest Handles	Glass Plates	Plate Rings	Shutter Studs and Plates
American Trunk Fittings	Coal Tongues	Garden Eyes	Roller Ends	Shine Lifts
Bedstead Plates	Cork Clips	" Labels	Rim Latches	Trunk Banding
Bucket Ears	Cornice Screws	" Hooks	Rivets	" Hinges
Band Brackets	Casement Stays	" Trowels	Raddisseurs	Table Catches
Box Clips	Closet Latches	Holdfasts	Shield Brackets	" Plates
Box Latches	Chain Links	Heaps and Staples	Sash Brackets	Trunk Hinges
Box Hinges	Corner Clips	Hooks and Staples	Screw Eyes	" Rods
Bails and Bars	Convex Washers	Hat and Coat Hooks	Sash L's	Ticket Holders
Bale Ties	Card Table Centres	Iron Heaters	Shutter L's	Venetian Brackets
Beating Spoons	Coopers' Rivets	Iron Stands	Sash T's	Vine Eyes
Bed Hooks and Eyes	Drawer Handles	Kettle Bars	Shutter Corners	Ventilators
Basket Fittings	Escutcheons	Lane Hooks	" Shoes	Wall Eyes
Bolt Hooks	Ears	Latch Escutcheons	Studs and Plates	Wine Case Hinges
Cupboard Catches	Feather Springs	Linch Pins	Sancepan Handles	Wall Ties
Cornice Slides	Fly Nuts	Organ Squares	Straining Bolts	Etc., Etc.
Coffin Loops				

And all kinds of FITTINGS for IRON AND TIN PLATE WORKERS, ENGINEERS, BRASSFOUNDERS, BUILDERS, &c.

DEALER IN ALL KINDS OF

GRATES, RANGES, CHIMNEY PIECES, BUILDERS' IRONMONGERY, TOOLS.
CUTLERY, ELECTRO-PLATE & FURNISHING IRONMONGERY.

H—IRONMONGERY AND HARDWARE.

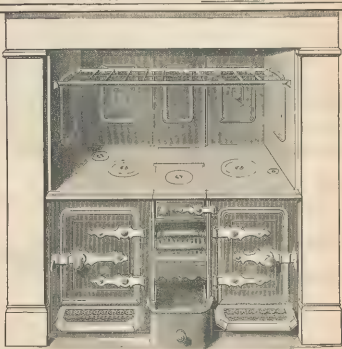
BROWN & GREEN, LTD.,

LUTON; and 69 to 71, FINSBURY PAVEMENT, LONDON.

THE ORIGINAL PATENTEES OF CLOSE FIRE KITCHENERS, & MANUFACTURERS OF THE "GEM" PORTABLE COOKING STOVE.

WITH BRONZE FOUR SILVER AND EIGHT GOLD MEDALS

Wt. High. Depth.
4 ft. KITCHENER, Left-hand Oven, 14 x 19 x 19"
Right-hand " 14 x 19 x 19"
Fire 12 in Price £10 10s.



4 ft. 6 in. KITCHENER, Left-hand Oven, 14 x 19 x 19"
Right-hand " 14 x 19 x 19"
Fire 12 in Price £12 10s.

No 70—Strong Double Oven Kitchen, with High Pressure Boiler Coverings and Plate Rack. Enclosure plate with Register door, &c. complete, extra finish. Kitchen, 20-in high. Coverings, 25½-in. Hot plate, 20 in.

BROWN & GREEN'S

NEW GEM COOKING STOVE "No 50."

CONVERTIBLE INTO OPEN OR CLOSE FIRE AT PLEASURE.

Requires no Brickwork
Burns Coal or Wood
Consumes a remarkably
small quantity of Fuel.



Cures Smoky Chimneys
The Best and most
Economical Stove.

NEW CHURCH STOVES.

UNRIVALLED
VENTILATING, DWARF,
AND CHURCH
STOVES,
FOR
CHURCHES, HALLS, SCHOOLS,
GREENHOUSES, BEDROOMS,
ETC.



Manufacturers of Price Medal Kitchen, Hot plate and other Stoves

BROWN & GREEN, Limited, Luton; and 69 to 71, Finsbury Pavement, LONDON.

IRONMONGERY AND HARDWARE.

For
WALL TIES.

INTERNATIONAL
HEALTH EXHIBITION.



PRIZE MEDAL, 1884.

INTERNATIONAL
HEALTH EXHIBITION.



PRIZE MEDAL, 1884.

INTERNATIONAL
EXHIBITION.



GOLD MEDAL, 1883.

ARCHITECTURAL AND
BUILDING TRADES EXHIBITION.



SILVER MEDAL, 1885.

For
STOVES
and
RANGES.

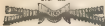
CHAMBERS, MONNERY & Co.

WHOLESALE IRONMONGERS,
41, BISHOPSGATE STREET WITHOUT, LONDON, E.C.

WALL TIES.

Twenty Tons in Stock

CAST IRON.
No. 41.



MONNERY'S PATENT.



WROUGHT IRON.
No. 2.



No. 3.



No. 6.



Any of the above altered, and any
pattern made to order.

IRON MANTELS & OVER
MANTELS.

MARBLE & SLATE
MANTELS.



"BISHOPSGATE" SMOKE PREVENTING REGISTER STOVE.

The Grate is constructed to give great heating power, with a very small consumption of Fuel, by its heat-reversing principle. It partly smokes non-burning and will burn almost any kind of coal. Smoky chimneys, backdrafted and low-drafts, are, by the nature of its construction, almost impossible. In the Air Register is fitted under the fire combustion can be regulated to any degree. Special cast-iron gas-fitters rivet out the back, and sweeping of chimneys is almost dispensed with.

Plans Register and Tile Stoves with gash or also as a side fire, with gas-pipe or iron boiler, &c.

Mantel Registers with Overmantels, Tiled Hearths, Tiles for Lavatories, Entrance Halls, &c.



"The Bishopsgate"

SELF SETTING, QUICK LIGHT-
ING, ECONOMICAL STOVE.

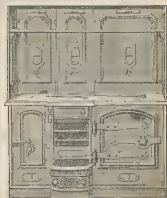
Improved Nozzle with Soot Door.
Improved Lift-Out Boiler.



VERY USEFUL AS AN AUXILIARY TO
THE LARGER RANGE.

Made in 11 Sizes, from 20 in. Oven
and Sham, to 43 in. Oven and Boiler.

All 23 in. high, and 17 in. deep.



Latest designs in RANGES and KITCHENERS,
Self-setting, Open and Close Fire. Smoke
preventing, Adjustable Fires, &c.

EVERY DESCRIPTION OF BUILDERS IRONMONGERY AT LOW PRICES WRITE FOR CATALOGUE.

Show-rooms for all the above—Five Minutes from Bank of England, and Two Minutes from Liverpool Street and Broad
Street Railway Stations.

H—IRONMONGERY AND HARDWARE.

MELBOURNE INTERNATIONAL EXHIBITION, 1880-81, the ONLY GOLD MEDAL, in addition to First-class Honours;
ADELAIDE INTERNATIONAL EXHIBITION, 1887, the FIRST ORDER OF MERIT, were awarded to

JAMES CARTLAND & SON

Manufacturers of every description of
Cabinet, Builders', Furnishing, and Naval Brass Foundry,
BIRMINGHAM.

LONDON SHOW ROOMS: 57, HOLBORN VIADUCT, E.C.

N.B. Complete Section of all kinds of Furnishing Brassfoundry, and Working Models of all Specialities, may be seen at our New Show Rooms,
67, MOCHORN VIADUCT. Buyers are respectfully invited to inspect same.

SPECIALITIES:

PRESTON'S PATENT SCREW ADJUSTMENT

For Opening, Closing, and Securely Fastening Windows, Fanlights, Casements, Skylights, &c.

FOR SKYLIGHTS.

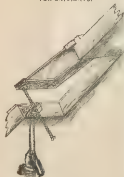


Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

Lighter.

A085. $\frac{7}{8}$ in. rod X 12 in. 9/00 ..



A742	4 in. x 6 in. x 10 ft	11 Everts	11.6 each
------	-----------------------	-----------	-----------

10/5

AB58. 5 in. rod x 10 in. All Brass. 8/0 "

12	Brass Wash, Iron Fittings	7/10	"
----	---------------------------------	------	---



A740 1.50 and 1.00 11.00 and 1.00

Lighter

674

NOTICE This thoroughly soft and strong American-made product for carrying things in a variety of sizes, including flashlights, cameras, telescopes, etc., and will fit in your car or any other vehicle. It is made of the finest American-made materials. An extra-strong, padded, and grooved plastic bag and window by hand, causes the box to travel as smooth as carrying the book along with it. It is required to fit in and remaining securely locked at any angle. The amount is perfectly easy, and a child can adjust it.

ROWLAND'S PATENT "CLIMAX" UMBRELLA HOLDERS AND PANS.

The action is very simple, effective, and reliable. Pressing the Umbrella Handle gently against the spring levers allows it to pass into the aperture, and is held there secure. It takes up very little space, only protruding a notch, and can be made for any number of Umbrellas.



		1	2	3	4	5	6	holes per day
Iron Brown Bearded ..	729	10/5	15/0	20/0	25/0	30/0	35/0	
Pinkish Brown ..	729	48/0	60/0	72/0	80/0	102/0	126/0	



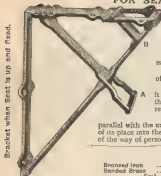
765	12.0	16.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0	90.0	91.0	92.0	93.0	94.0	95.0	96.0	97.0	98.0	99.0	100.0
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Working Models of any of the above Specialities may be seen at LONDON SHOW ROOMS, 57, HOLBORN VIADUCT, E.C.

H—IRONMONGERY AND HARDWARE.

JAMES CARTLAND & SON, BIRMINGHAM, Specialities.

GROOMBRIDGE'S PATENT SELF-ADJUSTING BRACKET FOR SEATS, SHELVES, TABLES, ETC.



Bracket when Seat is up and fixed.

Specially adapted for use in Churches, Chapels, Schools, Theatres, Public Buildings, Tram Cars, Railway Carriages, Steam Ships, Yachts, &c. and all places where space is limited.

THE ADVANTAGES of this Patent Bracket are that it can be raised or lowered by the action of only one hand.

It is automatic and perfect in action, and the extreme simplicity of its arrangements prevents any possibility of its getting out of order.

The seat or flap is raised to an elevated position by simply lifting it up, thus raising the hinge bar to become upright and rigid, when the cross support automatically adjusts itself, and the seat or table is ready for use.

The seat is lowered by lifting the cross support A until it is parallel with the under part of the seat flap, thereby pushing the smaller strut B out of its place into the recess, and the seat or flap falls at once into its position, and out of the way of persons passing by.



Bracket when Seat is folded down.

LIST OF PRICES. No 1540.

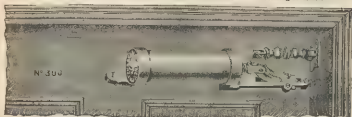
Bronzed Iron	..	..	..	8/6	7/6	6/6	5/6	4/6	3/6	2/6	1/6	each.
Banded Brass	..	..	..	10/0	9/0	8/0	7/0	6/0	5/0	4/0	3/0	..

Each Bracket is sent complete with one pair of hinges for fitting.

THE "LEEDS" ATMOSPHERIC DOOR CHECK AND SPRING (BEAN & GAINES' PATENT).

To close Doors automatically without Noise, and to prevent breaking of Glass.

These Springs are suitable for either right or left hand doors.



This engraving represents a door closed with a Leeds Spring, No. 300, for a door opening from you.

LIST OF PRICES OF NICKEL-PLATED SPRINGS, Nos 100, 200 and 300

No. Q.	1/2 lb.	1 lb.	2 lb.	3 lb.	4 lb.	5 lb.	6 lb.	7 lb.	8 lb.	9 lb.	10 lb.	11 lb.	12 lb.	13 lb.	14 lb.	15 lb.	16 lb.	17 lb.	18 lb.	19 lb.	20 lb.	21 lb.	22 lb.	23 lb.	24 lb.	25 lb.	26 lb.	27 lb.	28 lb.	29 lb.	30 lb.	31 lb.	32 lb.	33 lb.	34 lb.	35 lb.	36 lb.	37 lb.	38 lb.	39 lb.	40 lb.	41 lb.	42 lb.	43 lb.	44 lb.	45 lb.	46 lb.	47 lb.	48 lb.	49 lb.	50 lb.	51 lb.	52 lb.	53 lb.	54 lb.	55 lb.	56 lb.	57 lb.	58 lb.	59 lb.	60 lb.	61 lb.	62 lb.	63 lb.	64 lb.	65 lb.	66 lb.	67 lb.	68 lb.	69 lb.	70 lb.	71 lb.	72 lb.	73 lb.	74 lb.	75 lb.	76 lb.	77 lb.	78 lb.	79 lb.	80 lb.	81 lb.	82 lb.	83 lb.	84 lb.	85 lb.	86 lb.	87 lb.	88 lb.	89 lb.	90 lb.	91 lb.	92 lb.	93 lb.	94 lb.	95 lb.	96 lb.	97 lb.	98 lb.	99 lb.	100 lb.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100		

Each Spring is packed in cartons box, complete with screws and oil can, and directions for fitting.

CARTLAND'S PATENT HELICAL CLIMAX DOOR SPRINGS & HINGES.



Iron 5355

per doz
1 13/6
2 10/0
3 10/0
4 10/0
5 10/0
6 10/0

1 22/0
2 20/0
3 20/0
4 20/0
5 20/0
6 20/0



Brass 5354

per doz
1 13/6
2 10/0
3 10/0
4 10/0
5 10/0
6 10/0

1 22/0
2 20/0
3 20/0
4 20/0
5 20/0
6 20/0



Light Iron 2850, 1 1/2 inch 14/6
Medium 2850 1 1/2 inch 20/0
Heavy 2850, 2 inch 28/0



Light Iron 2851, 1 1/2 inch 18/0 each
Medium 2851 1 1/2 inch 25/0
Heavy 2851 2 inch 30/0
Very powerful 2851 2 inch 35/0
bedding, with any size 65/0

CAUTION

Merchants, Ironmongers, Builders and others, are requested to see that the Trade Mark is on each Spring, as the Patentees are informed that spurious imitations of the Climax Spring Hinges are being sold, which have neither the POWER or DURABILITY of CARTLAND'S

Working Model of any of the above Specialities may be seen at LONDON SHOW ROOMS, 67, HOLBORN VIADUCT, E.C.

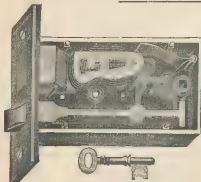
H—IRONMONGERY AND HARDWARE.

COLLEDGE & BRIDGEN,

Telegraphic Address:—
COLLEDGE, WOLVERHAMPTON.

WOLVERHAMPTON.

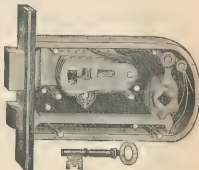
London Office:—
49, FINSBURY PAVEMENT E.C.



3256.

4-LEVER MORTISE.

3259	2-Lever, Brass Bolt, Gun Metal Bushed, Steel Follows	..
3256	4-Lever	..
3250	4-Lever Gun Metal Bolts	Extra Strong
3270	6-Lever	for BANKS, &c.
3271	2-Lever Brass Bolt, Gun Metal Bushed, Round End, Steel Follows	..
3272	4-Lever	..
3266	Brass Bolt, Steel Follows, Bushed, Round End	..
3254	Brass Bolt, 2-Lever, Steel Follows, Bushed, Round End	..



3272.

4-LEVER MORTISE.

Can x 1 1/2 in., 6 3/4 each	..	7 1/2 in. x 3 1/2 in.	8 0 each.
Can x 1 1/2 in., 3 0 ..	..	7 1/2 in. x 3 1/2 in.	0 ..
Can x 1 1/2 in., 10 0 ..	..	7 1/2 in. x 3 1/2 in.	13 0 ..
Can x 1 1/2 in., 15 0 ..	..	7 1/2 in. x 3 1/2 in.	15 0 ..
Can x 1 1/2 in., 6 3/4 ..	..	7 1/2 in. x 3 1/2 in.	5 0 ..
Can x 1 1/2 in., 7 0 ..	..	7 1/2 in. x 3 1/2 in.	0 1 ..
Can x 1 1/2 in., 3 0 ..	..	7 1/2 in. x 3 1/2 in.	5 0 ..
Can x 1 1/2 in., 4 9 ..	..	7 1/2 in. x 3 1/2 in.	6 0 ..

NOTE. All our Locks are Best Hand Made, and have our Name and Number on face plate.



174.

RIM.

174	1-Lever Iron Bolt	6	7	8 INCH
175	2-Lever Brass Bolt	2 3/4	3 3/4	5 0 each.
174	2-Lever, all Brass, Polished	3 3/4	4 3/4	5 9 ..
		10 0	—	..

202



175.

RIM.

175.	Strong Brass Bolt, Bushed ..	6	2	8 INCH
207.	.. ..	4 0	4 8	6 0 each
208.	.. ..	4 4	5 0	6 6 ..
	4-Lever	8 0	9 6	11 6 ..

H-IRONMONGERY AND HARDWARE.

COZENS & SHAW,

(Late HENRY BANKS)

Wholesale Furnishing & Builders' Ironmongers,

DUDLEY STREET, WOLVERHAMPTON.

REGISTER GRATES, STOVES AND RANGES OF EVERY DESCRIPTION.

The "ABBOTSFORD," "CAMBRIDGE," "MARLBOROUGH," "CUPOLA,"
The "SANDRINGHAM," with Descending Canopy forming a Roaster, Solid Firebrick Back and Sides.
Also CROSSHWAITE'S REGISTERS, with Patent Movable Canopy, &c. The LAEBERT, and other Self-setting Ranges.

Agents for FIRE EXTINGUISHERS & APPLIANCES, also SOLE AGENTS for HINDLE NORTON & CO., for the "Active"
Door Check and Spring, the "NORTON" Door Check and Spring, the "MERRITT" TYPEWRITER. Also the "CROWN JEWEL"
STOVES, the "FULLFORD" GAS LAMP and "STRANGE'S AL" CRYSTAL OIL, the Purest and Best Refined PETROLEUM ever produced.

A large Stock of MARBLE & ENAMELLED SLATE CHIMNEY PIECES,
MARBLE & METAL CURBS, ENCAUSTIC MAJOLICA & TILE HEARTHS
in Great Variety.

Architects' Designs Carefully Carried out in Every Variety, and Estimates Given.

KITCHEN RANGE WORK, BELL HANGING, PLUMBING, GAS FITTING, HOT AND COLD WATER FITTERS.
EXPERIENCED WORKMEN IN THE VARIOUS BRANCHES

Estimates Given for all kinds of IRONWORK, RANGES, GRATES, BATHS, WATER CLOSETS, LIFT & FORCE PUMPS
And Spouting Fitted and Fixed by experienced Workmen in any part of the Country.

PATENT DOUBLE-POINTED FENCE NAIL.

CANNOT BE EXTRACTED OR BROKEN.

Vide Press Notices—The Field, Builder, Agriculturist, Ironmonger, Inventions, &c.

A. HAMMER HEAD. B. CHISEL EDGE.

Sizes:—2, 3, 4, 5, and 6 ins. Sold in 7 lb. Bags, 3s. 6d.; per cwt., £2 15s., by

DURRAN'S' PATENTS SYNDICATE,

43, UPPER BAKER STREET, LONDON, N.W.

N.B.—See separate Price List for Cut Steel Secret Nails. 1½ in., 9d. per gross.



204

C.G. ROBERTS, HASLEMERE, SURREY.

Silver Medal at Health Exhibition, 1884.
Medal of Architects' Society, 1887.

THE

Rain Water Separator

Prevents the first portion of the rainfall
passing into the storing tank. It rains and
stores the water when the roof has been
washed by the rain.

PRICE from £2 15s. to £6 5s.



H-IRONMONGERY AND HARDWARE.

CHATWOOD'S PATENT SAFE & LOCK CO., LIMITED.

SAMUEL CHATWOOD, Bankers' Engineer, Managing Director.

MANUFACTORY.

Lancashire Safe & Lock Works,
BOLTON.

DEPOTS

76, NEWGATE STREET, LONDON, E.O.

11, CROSS STREET, MANCHESTER.

22, BOND STREET, LEEDS.

Telegraphic Addresses: "CHATWOOD, LONDON,"
"CHATWOOD, LONDON," "CHATWOOD, MANCHESTER,"
"CHATWOOD, BOLTON."

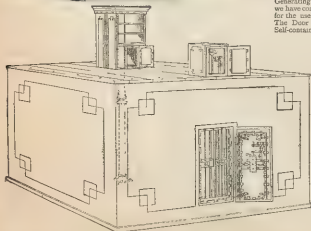
BANKERS' STEEL STRONG ROOMS.

This Engraving represents CHATWOOD'S PATENT
COMPOUND SELF-CONTAINED BANKERS' STEEL
STRONG ROOM.

It is built up of two Strong Steel Shells connected by Rolled Steel Girders, with truly planned tables, to which the outer and inner shells are secured, riveted, and screwed with cone head rivets and screws (which leave the outer and inner surfaces fair and smooth), thus making the two shells structurally one Strong Room. The space between the two is filled with best Steam Generating Composites. Strong rooms of this type we have constructed not only for Bankers' use, but for the use of Insurance Offices, and Merchants. The Door is provided with Chatwood's Patent Self-contained Safety Door, which is equivalent to a second door for use in cases of accident, and also with Folding Ventilating Gates, which are fitted with Chatwood's Patent Self-actuators.

CHATWOOD'S PATENT SAFE & LOCK COMPANY, LIMITED, erected the first Steel Strong Room ever built. They have also erected the largest Steel Strong Room in the world.

Mr. Chatwood having made Bank security arrangements his special study for upwards of twenty-five years, will be happy to meet Bankers or their Architects for consultation, and to supply drawings and estimates of all kinds of Bank work for security or convenience.



Chatwood's Patent Plate Chests and Safes, Fire Resisting Deed Boxes, Key Boxes, Key Cupboards, Jewel Chests, Black Japanned Deed Boxes, Paper Boxes, Dispatch Boxes, Cabinets for Letters, and Cash Boxes.

CONTRACTORS' COMPENDIUM.

D D

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H-IRONMONGERY AND HARDWARE.

CHATWOOD'S PATENT SAFE & LOCK COMPANY, LIMITED,

70, NEWGATE STREET, LONDON, E.C. 1;
11, CROSS STREET, MANCHESTER;
22, BOND STREET, LEEDS.

MANUFACTURERS OF
LANCASHIRE SAFE AND LOCK WORKS, BOLTON.

MANAGING DIRECTOR—
SAMUEL CHATWOOD, Bankers' Engineer.

List 3 CHATWOOD'S TREBLE PATENT FIRE AND THIEF-RESISTING DOORS have Grip Frames of best wrought iron.

No.	Grates of 1 pane.	Height.	Width.	"Horn" Frame.	£ s. d.	With Chatwood's "Grip" Frame, as described above	£ s. d.
1	6 in	2 ft 6 in	..	22 10 0	..	25 0 0	..
2	6 0	2 6	..	24 15 0	..	27 10 0	..
3	6 0	3 0	..	25 5 0	..	31 10 0	..
4	6 6	3 0	..	31 0 0	..	34 10 0	..
5	7 0	3 0	..	35 15 0	..	37 10 0	..

List 4A. CHATWOOD'S PATENT FIRE-RESISTING AND BURGLAR-PROOF DOORS, with "Grip Frame."

This quality is strongly recommended for the strong rooms of merchants and the safe rooms of banks, where the fire-
proof wall does not exceed one foot in thickness. The door is built up of best steel plates, 1 in. thick, with Chatwood's Patent Compound Drill and Hammer-proof Steel Bars in, thick, between the outer plate and the main bolt and lock work, making a solid mass of steel 2 1/2 in. in thickness. The door is strengthened with Chatwood's Patent "Solid-
Flange Lock Case" of best steel.

No.	Dimensions Outside of Frame.	Straight Bolt.	£ s. d.	List 5 Chatwood's Patent Improved Straight Claw Bolt front and back.	£ s. d.
2	6 ft. 6 in. x 8 ft. 6 in.	45 10 0	..	54 10 0	..
3	6 0 .. 3 0	51 0 0	..	61 0 0	..
4	6 6 .. 3 0	55 0 0	..	66 0 0	..
5	7 0 .. 3 0	60 15 0	..	72 15 0	..

List 6 CHATWOOD'S PATENT FIRE-RESISTING AND BURGLAR-PROOF COMPOUND STEEL DOOR, fitted with "Grip Frame" to ensure extra wall, thus forming a living in passage into the room. The outer plate of 1 1/2 in. of best steel, 1 in. thick, with inner plate of Chatwood's Patent Compound Drill and Hammer-proof Steel, 1 in. thick, and an additional second layer of the same steel 1 in. thick over the lock work, making in all a mass of compound steel 2 1/2 in. thick. The door is strengthened with Chatwood's Patent "Solid-Flange Lock Case" of best steel.

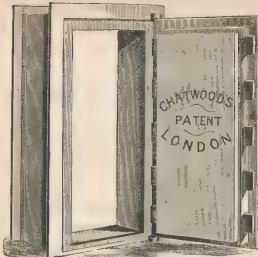
List 7. CHATWOOD'S PATENT STRONG ROOM DOORS of this class are of the same construction as those of List 6, with the exception that they are provided with Chatwood's Patent "Bolt" and "Claw" Bolt at front and back instead of the usual bolt.

No.	Dimensions Outside of Frame.	Straight Bolt.	£ s. d.	List 7 Chatwood's Patent Improved Straight Claw Bolt front and back.	£ s. d.
2	6 ft. 6 in. x 8 ft. 6 in.	45 10 0	..	54 10 0	..
3	6 0 .. 3 0	51 0 0	..	61 0 0	..
4	6 6 .. 3 0	55 0 0	..	66 0 0	..
5	7 0 .. 3 0	60 15 0	..	72 15 0	..

List 8 Quality (New Series) CHATWOOD'S OCTUPLE PATENT "INTERSECTED" STEEL DOORS, with "GRIP FRAME" and VENTILATING GATES.

The door is made of 1 1/2 in. thick, of carefully intersected hard and soft steel, with continuous or Open right, front and back, in the 7 frame (the locking weights intersect), and is fitted with Chatwood's Patent "Solid Flange" Lock Case of best steel.

No.	Dimensions Outside of Frame.	Straight Bolt.	£ s. d.	List 8 Chatwood's Patent Improved Straight Claw Bolt front and back.	£ s. d.
1	.. 8 ft. 6 in. x 8 ft. 6 in.	..	..	..	..
2	.. 6 0 .. 3 0	..	..	..	..
3	.. 6 6 .. 3 0	..	..	..	..
4	.. 6 6 .. 3 0	..	..	..	..
5	.. 7 0 .. 3 0	..	..	..	..



Chatwood's List 3 Door with Grip Frame.

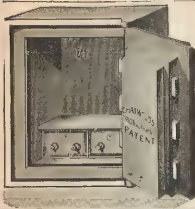


This Engraving shows Chatwood's List 8 Door and Frame, fitted with Ventilating Gate.

CHATWOOD'S PATENT SINGLE AND DOUBLE VENTILATING GATES.

CHATWOOD'S PATENT SAFE & LOCK COMPANY, LIMITED.

SAMUEL CHATWOOD, Bankers' Engineer, Managing Director.



List 3. Chatwood's Treble Patent Safes are manufactured on the principles invented and patented by Mr. Chatwood. The outer bodies are strongly constructed of best wrought-iron boiler plates, $\frac{3}{4}$ in. to 1 in. thick, firmly united at all corners by machine-fitted dovetails and strong angle iron, and strengthened all round in front by Chatwood's Patent T. Girder frame. The doors are formed of best boiler plates, $\frac{3}{4}$ in. thick, which are strengthened by Chatwood's Patent Solid Flames Lock Case.

SINGLE DOORS.					DOUBLE DOORS.				
CUTTING MEASUREMENTS.		NET PERCENT.			CUTTING MEASUREMENTS.		NET PERCENT.		
Without Drawers, &c.		List 3.			Without Drawers, &c.		List 3.		
No.	High	Wide	Deep.	A. S. d.	No.	High	Wide	Deep.	A. S. d.
1	24	36	24	11	1	36	72	36	11
2	24	36	24	11	2	36	72	36	11
3	24	36	24	11	3	36	72	36	11
4	24	36	24	11	4	36	72	36	11
5	24	36	24	11	5	36	72	36	11
6	24	36	24	11	6	36	72	36	11
7	24	36	24	11	7	36	72	36	11
8	24	36	24	11	8	36	72	36	11
9	24	36	24	11	9	36	72	36	11
10	24	36	24	11	10	36	72	36	11
11	24	36	24	11	11	36	72	36	11
12	24	36	24	11	12	36	72	36	11
13	24	36	24	11	13	36	72	36	11
14	24	36	24	11	14	36	72	36	11
15	24	36	24	11	15	36	72	36	11
16	24	36	24	11	16	36	72	36	11
17	24	36	24	11	17	36	72	36	11
18	24	36	24	11	18	36	72	36	11
19	24	36	24	11	19	36	72	36	11
20	24	36	24	11	20	36	72	36	11
21	24	36	24	11	21	36	72	36	11
22	24	36	24	11	22	36	72	36	11
23	24	36	24	11	23	36	72	36	11
24	24	36	24	11	24	36	72	36	11
25	24	36	24	11	25	36	72	36	11
26	24	36	24	11	26	36	72	36	11
27	24	36	24	11	27	36	72	36	11
28	24	36	24	11	28	36	72	36	11
29	24	36	24	11	29	36	72	36	11
30	24	36	24	11	30	36	72	36	11
31	24	36	24	11	31	36	72	36	11
32	24	36	24	11	32	36	72	36	11
33	24	36	24	11	33	36	72	36	11
34	24	36	24	11	34	36	72	36	11
35	24	36	24	11	35	36	72	36	11
36	24	36	24	11	36	36	72	36	11
37	24	36	24	11	37	36	72	36	11
38	24	36	24	11	38	36	72	36	11
39	24	36	24	11	39	36	72	36	11
40	24	36	24	11	40	36	72	36	11
41	24	36	24	11	41	36	72	36	11
42	24	36	24	11	42	36	72	36	11
43	24	36	24	11	43	36	72	36	11
44	24	36	24	11	44	36	72	36	11
45	24	36	24						

[illegible]

SINGLE DOORS.		NET PRICES. Without Drawers, &c.		DOUBLE DOORS.		NET PRICES. Without Drawers, &c.	
Measure.		List \$.		Measure.		List \$.	
1	14 by 17 by 15	50	12	14	24 by 35 by 15	55	0
2	12	30	11	50	18	38	11
3	18	32	12	29	54	44	30
4	20	34	13	30	56	46	31
5	22	36	14	31	58	48	32
6	24	38	15	32	60	50	33
7	26	40	16	33	62	52	34
8	28	42	17	34	64	54	35
9	30	44	18	35	66	56	36
10	32	46	19	36	68	58	37
11	34	48	20	37	70	60	38
12	36	50	21	38	72	62	39
13	38	52	22	39	74	64	40
14	40	54	23	40	76	66	41
15	42	56	24	41	78	68	42
16	44	58	25	42	80	70	43
17	46	60	26	43	82	72	44
18	48	62	27	44	84	74	45
19	50	64	28	45	86	76	46
20	52	66	29	46	88	78	47
21	54	68	30	47	90	80	48
22	56	70	31	48	92	82	49
23	58	72	32	49	94	84	50
24	60	74	33	50	96	86	51
25	62	76	34	51	98	88	52
26	64	78	35	52	100	90	53
27	66	80	36	53	102	92	54
28	68	82	37	54	104	94	55
29	70	84	38	55	106	96	56
30	72	86	39	56	108	98	57
31	74	88	40	57	110	100	58
32	76	90	41	58	112	102	59
33	78	92	42	59	114	104	60
34	80	94	43	60	116	106	61
35	82	96	44	61	118	108	62
36	84	98	45	62	120	110	63
37	86	100	46	63	122	112	64
38	88	102	47	64	124	114	65
39	90	104	48	65	126	116	66
40	92	106	49	66	128	118	67
41	94	108	50	67	130	120	68
42	96	110	51	68	132	122	69
43	98	112	52	69	134	124	70
44	100	114	53	70	136	126	71
45	102	116	54	71	138	128	72
46	104	118	55	72	140	130	73
47	106	120	56	73	142	132	74
48	108	122	57	74	144	134	75
49	110	124	58	75	146	136	76
50	112	126	59	76	148	138	77
51	114	128	60	77	150	140	78
52	116	130	61	78	152	142	79
53	118	132	62	79	154	144	80
54	120	134	63	80	156	146	81
55	122	136	64	81	158	148	82
56	124	138	65	82	160	150	83
57	126	140	66	83	162	152	84
58	128	142	67	84	164	154	85
59	130	144	68	85	166	156	86
60	132	146	69	86	168	158	87
61	134	148	70	87	170	160	88
62	136	150	71	88	172	162	89
63	138	152	72	89	174	164	90
64	140	154	73	90	176	166	91
65	142	156	74	91	178	168	92
66	144	158	75	92	180	170	93
67	146	160	76	93	182	172	94
68	148	162	77	94	184	174	95
69	150	164	78	95	186	176	96
70	152	166	79	96	188	178	97
71	154	168	80	97	190	180	98
72	156	170	81	98	192	182	99
73	158	172	82	99	194	184	100
74	160	174	83	100	196	186	
75	162	176	84		198	188	
76	164	178	85		200	190	
77	166	180	86				
78	168	182	87				
79	170	184	88				
80	172	186	89				
81	174	188	90				
82	176	190	91				
83	178	192	92				
84	180	194	93				
85	182	196	94				
86	184	198	95				
87	186	200	96				
88	188		97				
89	190		98				
90	192		99				
91	194		100				
92	196						
93	198						
94	200						
95							
96							
97							
98							
99							
100							

[illegible]

The doors are made of bare steel plates, 2 in thick, and rounded at the corners. The hinges are of the Hammer and Bolt type. These doors are strengthened by channels of mild steel. The doors are strengthened by channels of mild steel. The doors are strengthened by channels of mild steel.

SINGLE DOORS.				DOUBLE DOORS.			
LIVE & with Parallels				LIVE & with Parallels			
Roots				Roots			
IN. LANE.				IN. LANE.			
O. THICK DIMENSIONS.				O. THICK DIMENSIONS.			
No.	High	Wide	Depth	No.	High	Wide	Depth
1	10	14	24	1	20	28	48
2	10	14	24	2	20	28	48
3	10	14	24	3	20	28	48
4	10	14	24	4	20	28	48
5	10	14	24	5	20	28	48
6	10	14	24	6	20	28	48
7	10	14	24	7	20	28	48
8	10	14	24	8	20	28	48
9	10	14	24	9	20	28	48
10	10	14	24	10	20	28	48
11	10	14	24	11	20	28	48
12	10	14	24	12	20	28	48
13	10	14	24	13	20	28	48
14	10	14	24	14	20	28	48
15	10	14	24	15	20	28	48
16	10	14	24	16	20	28	48
17	10	14	24	17	20	28	48
18	10	14	24	18	20	28	48
19	10	14	24	19	20	28	48
20	10	14	24	20	20	28	48
21	10	14	24	21	20	28	48
22	10	14	24	22	20	28	48
23	10	14	24	23	20	28	48
24	10	14	24	24	20	28	48
25	10	14	24	25	20	28	48
26	10	14	24	26	20	28	48
27	10	14	24	27	20	28	48
28	10	14	24	28	20	28	48
29	10	14	24	29	20	28	48
30	10	14	24	30	20	28	48
31	10	14	24	31	20	28	48
32	10	14	24	32	20	28	48
33	10	14	24	33	20	28	48
34	10	14	24	34	20	28	48
35	10	14	24	35	20	28	48
36	10	14	24	36	20	28	48
37	10	14	24	37	20	28	48
38	10	14	24	38	20	28	48
39	10	14	24	39	20	28	48
40	10	14	24	40	20	28	48
41	10	14	24	41	20	28	48
42	10	14	24	42	20	28	48
43	10	14	24	43	20	28	48
44	10	14	24	44	20	28	48
45	10	14	24	45	20	28	48
46	10	14	24	46	20	28	48
47	10	14	24	47	20	28	48
48	10	14	24	48	20	28	48
49	10	14	24	49	20	28	48
50	10	14	24	50	20	28	48
51	10	14	24	51	20	28	48
52	10	14	24	52	20	28	48
53	10	14	24	53	20	28	48
54	10	14	24	54	20	28	48
55	10	14	24	55	20	28	48
56	10	14	24	56	20	28	48
57	10	14	24	57	20	28	48
58	10	14	24	58	20	28	48
59	10	14	24	59	20	28	48
60	10	14	24	60	20	28	48
61	10	14	24	61	20	28	48
62	10	14	24	62	20	28	48
63	10	14	24	63	20	28	48
64	10	14	24	64	20	28	48
65	10	14	24	65	20	28	48
66	10	14	24	66	20	28	48
67	10	14	24	67	20	28	48
68	10	14	24	68	20	28	48
69	10	14	24	69	20	28	48
70	10	14	24	70	20	28	48
71	10	14	24	71	20	28	48
72	10	14	24	72	20	28	48
73	10	14	24	73	20	28	48
74	10	14	24	74	20	28	48
75	10	14	24	75	20	28	48
76	10	14	24	76	20	28	48
77	10	14	24	77	20	28	48
78	10	14	24	78	20	28	48
79	10	14	24	79	20	28	48
80	10	14	24	80	20	28	48
81	10	14	24	81	20	28	48
82	10	14	24	82	20	28	48
83	10	14	24	83	20	28	48
84	10	14	24	84	20	28	48
85	10	14	24	85	20	28	48
86	10	14	24	86	20	28	48
87	10	14	24	87	20	28	48
88	10	14	24	88	20	28	48
89	10	14	24	89	20	28	48
90	10	14	24	90	20	28	48
91	10	14	24	91	20	28	48
92	10	14	24	92	20	28	48
93	10	14	24	93	20	28	48
94	10	14	24	94	20	28	48
95	10	14	24	95	20	28	48
96	10	14	24	96	20	28	48
97	10	14	24	97	20	28	48
98	10	14	24	98	20	28	48
99	10	14	24	99	20	28	48
100	10	14	24	100	20	28	48

H-IRONMONGERY AND HARDWARE.

CHATWOOD'S PATENT SAFE & LOCK COMPANY, LIMITED,

70, NEWGATE STREET, LONDON, E.C., 11 CROSS STREET, MANCHESTER-23, BOND STREET, LEEDS

Manufacturers: LANGASHIRE SAFE AND LOCK WORKS, BOLTON.

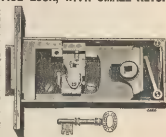
SAMUEL CHATWOOD, Bankers' Engineer, Managing Director.

CHATWOOD'S PATENT "INVINCIBLE" AND HAND-MADE FOUR LEVER LOCKS.

CHATWOOD'S PATENT COMPOUND ALL BRASS MORTISE LOCK, WITH SMALL KEYS.



This Lock has been designed to meet the objection which has long been felt to the large keys of ordinary door locks. The Main Lock is provided with a strong spring bolt, operated by the knob and a blocked in the locked position by the bolt of a small subsidiary lock, which works at right angles to the bolt of the main lock (see the principle of Safe Door Locks). This is it of the subsidiary lock acting on y as a blocking piece to occupy, when locked, the space required for the traverse of the main bolt when unlocked, can only be subjected to compression, and can never throw strain on the working parts of the subsidiary lock.



We can confidently recommend these Locks as thoroughly sound and reliable, and not likely to get out of order. They are made of Brass throughout, and are supplied with two small keys each.

MORTISE DEAD LOCKS.

Sizes	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	7	8
Four Lever ..	10/-	10/-	10/-	10/-	10/-	10/-	11/-	11/-	12/-	13/-	14/-	16/-
"Invincible" ..	22/-	22/-	23/-	23/-	24/-	24/-	25/-	25/-	26/-	27/-	30/-	33/-

TWO BOLT MORTISE LOCKS.

With Reversible Latch Bolt to suit either hand

Sizes	4	4 1/2	5	5 1/2	6	7	8
Four Lever ..	24/-	24/-	25/-	25/-	26/-	27/-	29/-
"Invincible" ..	32/-	37/-	40/-	40/-	42/-	45/-	48/-

SPRING MORTISE TO LOCK AND SPRING.

Sizes	3	3 1/2	4	4 1/2	5	6	7	8
Four Lever ..	12/-	13/-	14/-	15/-	16/-	17/-	18/-	20/-
"Invincible" ..	30/-	35/-	35/-	37/-	40/-	42/-	45/-	50/-

RIM DEAD LOCKS TO LOCK ON ONE SIDE.

Sizes	4	4 1/2	5	5 1/2	6	7	8
Four Lever ..	12/-	12/-	12/-	13/-	14/-	15/-	16/-
"Invincible" ..	22/-	22/-	23/-	23/-	25/-	25/-	30/-

TWO BOLT RIM LOCKS.

Sizes	4	4 1/2	5	5 1/2	6	7	8
Four Lever ..	13/-	13/-	14/-	14/-	15/-	16/-	17/-
"Invincible" ..	32/-	33/-	34/-	36/-	36/-	38/-	45/-

MORTISE NIGHT LATCHES.

Sizes	2 1/2	3	3 1/2	4	4 1/2	5
Four Lever ..	12/-	13/-	14/-	15/-	16/-	17/-
"Invincible" ..	25/-	26/-	27/-	28/-	29/-	30/-

RIM DEAD LOCKS TO LOCK ON BOTH SIDES.

Sizes	4	4 1/2	5	5 1/2	6	7	8
Four Lever ..	12/-	12/-	12/-	13/-	14/-	15/-	16/-
"Invincible" ..	24/-	24/-	25/-	25/-	26/-	28/-	34/-

DRAWBACK RIM NIGHT LATCHES.

Sizes	2 1/2	3	3 1/2	4	4 1/2	5	6
Four Lever ..	9/-	10/-	10/-	11/-	11/-	12/-	12/-
"Invincible" ..	21/-	22/-	23/-	24/-	24/-	27/-	27/-

CAUTION.—Chatwoods do not sell any of their Safe Locks at any price.

DRAWBACK FLUSH & RIM NIGHT LATCHES, TRUNK & PORTMANTEAU LOCKS, BOOK EDGE, PORTFOLIO, WRITING CASH OR LETTER LOCKS, BRASS PAD, TILL OR DRAWER, CUPBOARD, PEDESTAL, SIDEBBOARD, & BOX LOCKS.

H—IRONMONGERY AND HARDWARE.

CLARK HUNT & Co.,

159 & 160, SHOREDITCH, LONDON.

"ABBOTSFORD" STOVE DEPOT.

No. 121.

"ABBOTSFORD"

Fitted with Tiles.

FINE CAST,

£2 7 6

GROUND AND B. B.

£3 5 0

SIZES.

36 in. to 40 in. wide.

38 in. high.

Fire, 17 in. wide.



SHOW ROOMS

FOR
STOVES,
MANTELS,
TILES,
FENDERS,
BRASSES,
RESTS, &c.

RANGES,
KITCHENERS,
BATHS,
LAVATORIES,
&c.

No. 120.

"ABBOTSFORD"

Fitted with Tiles.

GROUND AND B.B.

£3 15 0

SIZES.

36 in. to 40 in. wide.

38 in. high.

Fire 17 in. wide.



LOCKS AND
FURNITURE,
IRONMONGERY,
BRASSFOUNDRY,
CASTINGS, &c.

PLAIN AND
ORNAMENTAL
WROUGHT IRONWORK
TO DRAWINGS.
WROUGHT AND CAST
RAILINGS,
IRON DOORS,
WINDOW-GUARDS,
&c.

OVER 50 SETS OF STOVES & CHIMNEY PIECES ON SHOW. ALSO TILE HEARTHS & CURBS.

REGISTERED STOVES of all descriptions and various qualities.

Price List on application, enclosing two stamps.

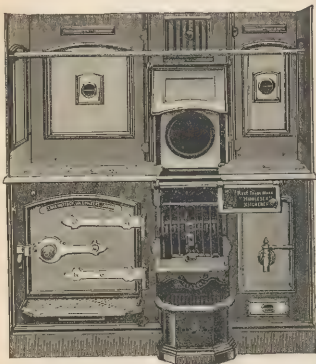
210

H-IRONMONGERY AND HARDWARE.

CLARK HUNT & Co.,

159 & 160, SHOREDITCH, LONDON,

Sole Makers of "MIDDLESEX" KITCHENERS.



With Open and Close Arrangement and **LIFTING FIRE.**

With Oven and Side Boiler.

With Two Ovens and H P. Bath Boiler.

	Good Quality.	Extra Strong and Best Finish throughout.
Width 36 inches	£8 0 0	...
" 42 "	8 8 0	£11 13 6
" 48 "	9 4 0	12 9 6
" 54 "	9 17 0	13 8 0

	Good Quality.	Extra Strong and Best Finish throughout.
Width 48 inches	£12 12 0	£16 6 0
" 54 "	13 13 0	18 2 6
" 60 "	...	20 4 6
" 72 "	...	26 5 0

KITCHENERS OF VARIOUS STYLES AND ALL SIZES, FROM £2 TO £40.

PRICE LIST ON APPLICATION, ENCLOSING TWO STAMPS

H—IRONMONGERY AND HARDWARE.

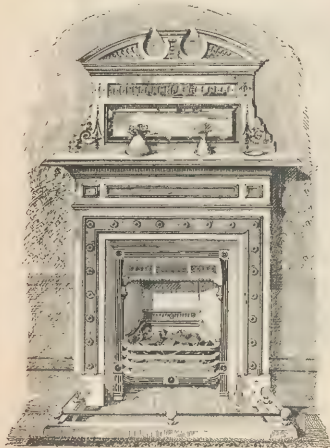
FALKIRK IRON COMPANY

67, UPPER THAMES STREET, LONDON, E.C.

22—24, SOUTH CASTLE ST., LIVERPOOL;

16, BOTHWELL ST., GLASGOW; 22, PICARDY PLACE, EDINBURGH.

—& WORKS; FALKIRK, N. B. —&



CLOSE FIRE KITCHENER AND OPEN FIRE RANGES,

Fitted with all the latest
improvements—PORTABLE
COOKING STOVE, INDE-
PENDENT RANGES AND
GRILLS

Iron Mantel
Grates and
Overmantels,
NEW & EFFECTIVE
DESIGNS.

Marble, Enamelled,
Slate, Wood,
Chimney Pieces.

Tiled & all Kinds of
Register Grates and
Interiors.

With Ordinary or Slow
Combustion Fires.

ORNAMENTAL GATES, RAILINGS
BALUSTERS, CRESTINGS,
AND ARCHITECTURAL IRONWORK.

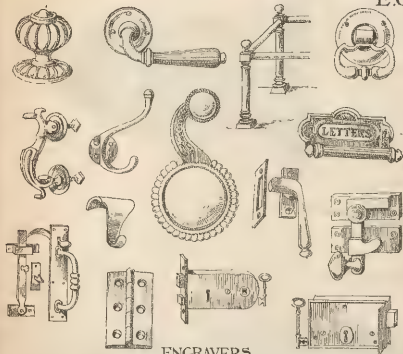
STABLE FITTINGS.
CAST IRON BATHS
Captain Galton's Fresh
Warm Air
Ventilating Grates.

LARGEST STOCK AND BEST SELECTION IN LONDON.
ENAMELLED STREET, NAME AND ADVERTISING PLATES OF EVERY DESCRIPTION.
CAST IRON HOLLOWWARE, ENAMELLED & TINNED. ENAMELLED STAMPED WARE.

H—IRONMONGERY AND HARDWARE.

CARTER & AYNESLEY

54, BISHOPSGATE ST. WITHOUT
LONDON. E.C.



ENGRAVERS

WROUGHT IRON ~ CAST IRON ~ BRASSWORK

EVERY DESCRIPTION OF
BUILDERS IRONMONGERY GAS FITTINGS
STOVES & RANGES DOOR FURNITURE
STABLE FITTINGS MEDIEVAL BRASSWORK

SPECIAL
QUOTATIONS GIVEN.

H—IRONMONGERY AND HARDWARE.

JAMES GIBBONS,

ST. JOHN'S WORKS, WOLVERHAMPTON.

Patentee, General Lock Manufacturer, & Builders' Brassfounder.

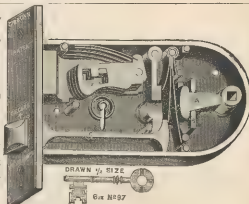
Telegraphic Address—"GIBBONS, WOLVERHAMPTON."

ESTABLISHED 1807.

GIBBONS' PATENT
"ANTI-FRICTION"
MORTICE LOCK.

FRICTION -- REDUCED
TO A MINIMUM.

Follower as far
back in a 6-in. lock
as in an ordinary
7-inch.



The rounded form of the follower A working against the loose tail B, reduces the friction to a minimum, the light spring upon the lock bolt C allows the door to close silently and the strong one upon the crank D prevents the knobs from bending. To be heavy, being at its extreme end of the lock, allows the greatest possible space between the knob and keyhole, which is a most important advantage. In fact, a 6 inch lock takes the place of an ordinary 7 inch.

The rounded ends save time in fixing.

No. 54—6 by 8 inch,	2 Brass Bolt, Steel Follower	..	..	..	..	4/6 each.
" 55—6 by 8 inch,	" " 2 Lever	..	..	..	..	5/6 "
" 56—6 by 8 inch,	" " 4 Lever, and Brass Bushed	..	..	..	..	7/6 "
" 57—6 by 8 inch,	Best Quality, Gun Metal Bushed, 4 Lever, and Ornamental Key, as shown	..	..	..	..	9/6 "
" 57—7 by 8 inch,	" " " "	..	..	..	..	11/ "
" 58—7 by 8 inch,	" " " "	..	..	..	extra strong	15/ "
" 59—7 by 8 inch,	" " " Gun Metal Bolts and Bushes	..	..	..	..	20/- "

ALL LATCH BOLTS REVERSIBLE.

If made to Differ, with MASTER KEY to pass, 2/- each lock extra.
If made to Differ, with MASTER KEY to pass and lock twice, 5/- each lock extra.

GIBBONS' REGISTERED FLUSH BOLT,

WITH SUNK LEVER ACTION.

No. 174.



This Bolt acts by pulling the Lever A forward, and folding it into the opposite recess. It does not hurt the finger in using it, and when fixed in the rebate of Folding doors, it cannot be opened until the first half of door is open.

PRICES.

	6	8	12	15	18	24	30	36 inch long.
8 inch wide	2/5	2/7	3/6	3/7	4/1	5/2	7/6	10/ each.
10 "	2/10	3/6	3/6	4/1	4/8	5/10	8/	10/6 "
12 "	3/3	3/6	4/-	4/8	5/3	6/6	9/	11/6 "
14 "			5/6	6/5	7/3	9/-	10/6	13/6 "

LONDON OFFICE & SHOW ROOMS: 22, SURREY STREET, STRAND.

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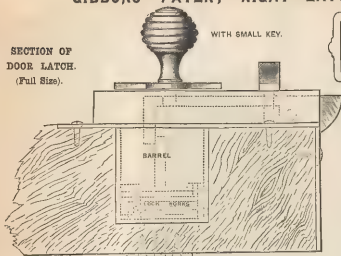
H-IRONMONGERY AND HARDWARE.

TELEGRAPHIC ADDRESS—"GIBBONS, WOLVERHAMPTON."

JAMES GIBBONS, ST. JOHN'S WORKS, WOLVERHAMPTON.

GIBBONS' PATENT NIGHT LATCH.

SECTION OF
DOOR LATCH.
(Full Size).



WITH SMALL KEY.



Front of Latch.



Full Size of Key for
2 1/2 in. Doors.

KEYHOLE ESCUTCHEON.

The improvement consists in the Lock works, levers &c. being carried in a barrel which is let into the door, thus enabling the key to be made much shorter, which is much more convenient for the pocket than the present long latch-key in general use.

PRICES.

No. 109. All Brass, Secure, 6 Lever, & 2 Plated Keys, 12s. 6d. ea. | No. 110. All Brass, Secure, 4 Lever, & 2 Plated Keys, 10s. ea.
No. 111. Japanned Iron, 4 Lever, and 4 Keys, 7s. 6d. each.

GIBBONS' PIVOT CENTRES, No. 820. PATENT APPLIED FOR.

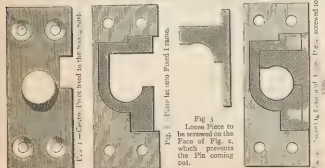


Fig. 3
Loose Piece to
be screwed on the
Face of Fig. 2,
which prevents the
Pin coming
out.

This improvement consists of the Loose Piece (Fig. 3) being screwed on to the face of the Plate (Fig. 2) which prevents the Pinlight Centre (Fig. 1) from being jerked out of the Plate if shut too quickly. It also makes a better fit round the centre pin, and adds to the close fitting of the Pinlight.

PRICES.

Best Malleable Iron
No. 1 size, 2 1/2 by 1 1/2 5d.
No. 2 size, 3 1/2 by 1 1/2 6d.
No. 3 size, 4 1/2 by 1 1/2 7d.
No. 4 size, 5 1/2 by 1 1/2 8d.
No. 5 size, 6 1/2 by 1 1/2 9d.
No. 6 size, 7 1/2 by 1 1/2 10d.
No. 7 size, 8 1/2 by 1 1/2 11d.
No. 8 size, 9 1/2 by 1 1/2 12d.
No. 9 size, 10 1/2 by 1 1/2 13d.
No. 10 size, 11 1/2 by 1 1/2 14d.
No. 11 size, 12 1/2 by 1 1/2 15d.
No. 12 size, 13 1/2 by 1 1/2 16d.
No. 13 size, 14 1/2 by 1 1/2 17d.
No. 14 size, 15 1/2 by 1 1/2 18d.
No. 15 size, 16 1/2 by 1 1/2 19d.
No. 16 size, 17 1/2 by 1 1/2 20d.
No. 17 size, 18 1/2 by 1 1/2 21d.
No. 18 size, 19 1/2 by 1 1/2 22d.
No. 19 size, 20 1/2 by 1 1/2 23d.
No. 20 size, 21 1/2 by 1 1/2 24d.
No. 21 size, 22 1/2 by 1 1/2 25d.
No. 22 size, 23 1/2 by 1 1/2 26d.
No. 23 size, 24 1/2 by 1 1/2 27d.
No. 24 size, 25 1/2 by 1 1/2 28d.
No. 25 size, 26 1/2 by 1 1/2 29d.
No. 26 size, 27 1/2 by 1 1/2 30d.
No. 27 size, 28 1/2 by 1 1/2 31d.
No. 28 size, 29 1/2 by 1 1/2 32d.
No. 29 size, 30 1/2 by 1 1/2 33d.
No. 30 size, 31 1/2 by 1 1/2 34d.
No. 31 size, 32 1/2 by 1 1/2 35d.
No. 32 size, 33 1/2 by 1 1/2 36d.
No. 33 size, 34 1/2 by 1 1/2 37d.
No. 34 size, 35 1/2 by 1 1/2 38d.
No. 35 size, 36 1/2 by 1 1/2 39d.
No. 36 size, 37 1/2 by 1 1/2 40d.
No. 37 size, 38 1/2 by 1 1/2 41d.
No. 38 size, 39 1/2 by 1 1/2 42d.
No. 39 size, 40 1/2 by 1 1/2 43d.
No. 40 size, 41 1/2 by 1 1/2 44d.
No. 41 size, 42 1/2 by 1 1/2 45d.
No. 42 size, 43 1/2 by 1 1/2 46d.
No. 43 size, 44 1/2 by 1 1/2 47d.
No. 44 size, 45 1/2 by 1 1/2 48d.
No. 45 size, 46 1/2 by 1 1/2 49d.
No. 46 size, 47 1/2 by 1 1/2 50d.
No. 47 size, 48 1/2 by 1 1/2 51d.
No. 48 size, 49 1/2 by 1 1/2 52d.
No. 49 size, 50 1/2 by 1 1/2 53d.
No. 50 size, 51 1/2 by 1 1/2 54d.
No. 51 size, 52 1/2 by 1 1/2 55d.
No. 52 size, 53 1/2 by 1 1/2 56d.
No. 53 size, 54 1/2 by 1 1/2 57d.
No. 54 size, 55 1/2 by 1 1/2 58d.
No. 55 size, 56 1/2 by 1 1/2 59d.
No. 56 size, 57 1/2 by 1 1/2 60d.
No. 57 size, 58 1/2 by 1 1/2 61d.
No. 58 size, 59 1/2 by 1 1/2 62d.
No. 59 size, 60 1/2 by 1 1/2 63d.
No. 60 size, 61 1/2 by 1 1/2 64d.
No. 61 size, 62 1/2 by 1 1/2 65d.
No. 62 size, 63 1/2 by 1 1/2 66d.
No. 63 size, 64 1/2 by 1 1/2 67d.
No. 64 size, 65 1/2 by 1 1/2 68d.
No. 65 size, 66 1/2 by 1 1/2 69d.
No. 66 size, 67 1/2 by 1 1/2 70d.
No. 67 size, 68 1/2 by 1 1/2 71d.
No. 68 size, 69 1/2 by 1 1/2 72d.
No. 69 size, 70 1/2 by 1 1/2 73d.
No. 70 size, 71 1/2 by 1 1/2 74d.
No. 71 size, 72 1/2 by 1 1/2 75d.
No. 72 size, 73 1/2 by 1 1/2 76d.
No. 73 size, 74 1/2 by 1 1/2 77d.
No. 74 size, 75 1/2 by 1 1/2 78d.
No. 75 size, 76 1/2 by 1 1/2 79d.
No. 76 size, 77 1/2 by 1 1/2 80d.
No. 77 size, 78 1/2 by 1 1/2 81d.
No. 78 size, 79 1/2 by 1 1/2 82d.
No. 79 size, 80 1/2 by 1 1/2 83d.
No. 80 size, 81 1/2 by 1 1/2 84d.
No. 81 size, 82 1/2 by 1 1/2 85d.
No. 82 size, 83 1/2 by 1 1/2 86d.
No. 83 size, 84 1/2 by 1 1/2 87d.
No. 84 size, 85 1/2 by 1 1/2 88d.
No. 85 size, 86 1/2 by 1 1/2 89d.
No. 86 size, 87 1/2 by 1 1/2 90d.
No. 87 size, 88 1/2 by 1 1/2 91d.
No. 88 size, 89 1/2 by 1 1/2 92d.
No. 89 size, 90 1/2 by 1 1/2 93d.
No. 90 size, 91 1/2 by 1 1/2 94d.
No. 91 size, 92 1/2 by 1 1/2 95d.
No. 92 size, 93 1/2 by 1 1/2 96d.
No. 93 size, 94 1/2 by 1 1/2 97d.
No. 94 size, 95 1/2 by 1 1/2 98d.
No. 95 size, 96 1/2 by 1 1/2 99d.
No. 96 size, 97 1/2 by 1 1/2 100d.

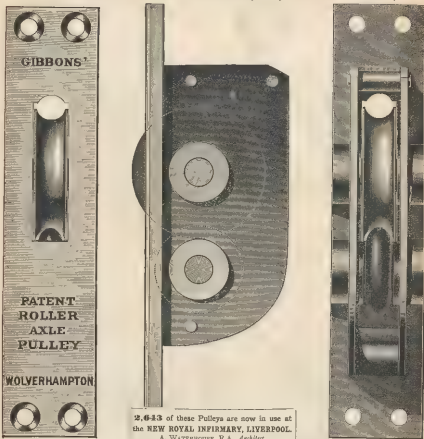
LONDON OFFICE & SHOW ROOMS: 22, SURREY STREET, STRAND.

H—IRONMONGERY AND HARDWARE.

JAMES GIBBONS, ST. JOHN'S WORKS, WOLVERHAMPTON.

TELEGRAPHIC ADDRESS—"GIBBONS, WOLVERHAMPTON"

GIBBONS' PATENT "ROLLER" AXLE PULLEY.



This Patent consists in the introduction of a Roller beneath the Ordinary Pulley Wheel, which causes the Pulley to run smoothly and noiselessly, and greatly reduces the friction; the roller also keeps the wheel well in the centre, thus preventing all side wear and tear. It is impossible for the Pulley to become jammed, which is the chief cause of sash cords and chains breaking. It has two axles and two pairs of bushes, and will last twice the time of an ordinary Pulley. The Pulley Axle is fitted loosely, so as to allow the weight to be carried by the roller.

PRICE, with Brass Face, and Solid Gun Metal Pulley, 42. - per Dozen.

LONDON OFFICE & SHOW ROOMS: 22, SURREY STREET, STRAND.

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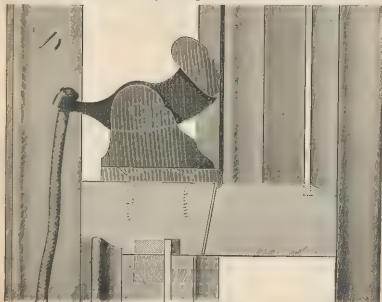
H—IRONMONGERY AND HARDWARE.

TELEGRAPHIC ADDRESS—"GIBBONS, WOLVERHAMPTON."

JAMES GIBBONS, ST. JOHN'S WORKS, WOLVERHAMPTON.

THE "VICTORIA" PATENT SASH FASTENER.

The Victoria Patent Sash Fastener is one which can be relied upon to give security against the possibility of either Sash being opened from the outside. As it is automatic in its action, it always keeps the Sashes fastened. The special advantage claimed for this Fastener is, that **ONE** or **BOTH** of the Sashes may be left open for Ventilation with perfect security. The bottom plate is made with a fillet on the underside, which effectually prevents a knife or other instrument being forced up between the sashes to tamper with the fastener, and if an attempt were made it would only cause the fastener to become if possible. **MORE SECURE** by allowing the tumbler to fall.



The Sashes can be closed from the outside **WITHOUT INTERFERING** with the Fastener.

The Fastener is fixed on the top of the lower Sash immediately over the stile, so that it presses against the stile of the top Sash. When either Sash is required to be opened, the lever is released by a cord attached to the fastener.

NOTE.—It is necessary that the Sashes should be pressed against the outside lining of Sash Frame and the inside bead, while the Fastener is being fixed. (See Engraving.)

♦ PRICES. ♦

No. 1.—JAPANNED IRON, 9s. per Doz. | No. 2.—BRASS ... 24s. per Doz.
No. 3.—BRASS (Very Strong, for Larger Sashes), 36s. per Doz.

LONDON OFFICE & SHOW ROOMS: 22, SURREY STREET, STRAND.

H—IRONMONGERY AND HARDWARE.

W. & R. LEGGOTT,

Makers of Specialities,

235, High Holborn, LONDON; 109, Hope Street,
GLASGOW; and Silens Works, BRADFORD.

Telegraphic Address:
"SILENS," BRADFORD



CONTRACTORS TO HER MAJESTY'S GOVERNMENT.

BY HER
MAJESTY'S



ROYAL
LETTERS PATENT.

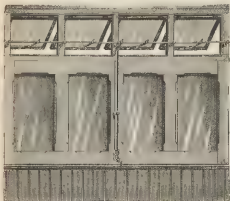
INTERNATIONAL HEALTH EXHIBITION, LONDON, 1884.
PRIZE MEDAL

AWARDED TO

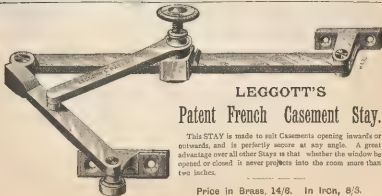


Leggott's Adjustment for Opening & Closing Fanlights, & Lifting Skylights.

"KRINSERO."



CORD ACTION FOR LANTERN LIGHTS &c



LEGGOTT'S

Patent French Casement Stay.

This STAY is made to suit Casements opening inwards or outwards, and is perfectly secure at any angle. A great advantage over all other Stays is that whether the window be opened or closed it never projects into the room more than two inches.

Price in Brass, 14/6. In Iron, 8/3.

W. & R. LEGGOTT,

Telegraphic Address:
"SILENS," BRADFORD.

Makers of Specialities,

235, HIGH HOLBORN, LONDON; 109, HOPE STREET, GLASGOW;
and SILENS WORKS, BRADFORD.

Leggott's Adjustment for Opening & Closing Fanlights, & Lifting Skylights.

SILENS FOR FANLIGHTS.



No. 2. MALLEABLE IRON .. 4/3
No. 2. BRASS .. 8/-

No. 2 opens 10 in., and is suitable for Windows about 4 ft. square, or circular area.

No. 6. MALLEABLE IRON .. 7/-
No. 6. BRASS .. 12/6

No. 6 opens 14 in., and is suitable for Windows about 3 ft. square, or circular area.

No. 8. MALLEABLE IRON .. 11/0
No. 8. BRASS .. 23/6

No. 8 opens 18 in., and is suitable for large heavy Windows.

There are made to fit in almost any imaginable position, and are always locked when open or closed.

We can highly recommend the Silens for Fanlights and Skylights, and can guarantee the easy and noiseless opening and closing of any window, whatever its size, provided a suitable cord adjustment is made. When ordering, give length, and weight of window, and the adjustment to four feet from the Door, See Fig. 4, shown on Illustration. When the Adjustment is required for Iron Casements, we suggest the Casements be tapped to receive an screw.

OLD SILENS FOR SKYLIGHTS.



These are suitable when the Cord is to be carried down over side of pulley extra

No. 3. MALLEABLE IRON .. 6/-
No. 3. BRASS .. 10/6

No. 3 opens 12 in., and is suitable for Skylights 2 ft. long and 1 ft. 6 in. wide.

No. 5. MALLEABLE IRON .. 7/6
No. 5. BRASS .. 13/6

No. 5 opens 16 in., and is suitable for Skylights 3 ft. long and 2 ft. wide.

No. 7. MALLEABLE IRON .. 13/6
No. 7. BRASS .. 25/-

No. 7 opens 18 in., and is suitable for Skylights 6 ft. long and 4 ft. wide.

THESE SKYLIGHT OPENERS ARE UNSURPASSED.

NEW SILENS FOR SKYLIGHTS.



These are superior to the old Silens, do not require a Pulley, and the Cord hangs straight down.

No. 3. MALLEABLE IRON .. 5/6
No. 3. BRASS .. 13/-

No. 3 opens 12 in., and is suitable for skylights 2 ft. long and 1 ft. 6 in. wide.

No. 5. MALLEABLE IRON .. 6/6
No. 5. BRASS .. 17/-

No. 5 opens 16 in., and is suitable for skylights 3 ft. long and 2 ft. wide.

No. 7. MALLEABLE IRON .. 13/6
No. 7. BRASS .. 31/6

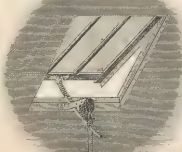
No. 7 opens 18 in., and is suitable for skylights 6 ft. long and 4 ft. wide.

For Roof Lights above this size we make a special powerful opener.

PATENT ORDER FORM.



FIG 2



THE "WILMOS."

The "WILMOS" is a NEW PATENT FANLIGHT OPENER, worked with a rod or endless cord, and will be found the most perfect article yet made for efficiency in working, and simplicity of construction. When fixed with Rod is very easy to operate, and is a property of such, even at the handle, which is a choice.

It is made to open Fanlights round, octagonal, top or bottom, in easily fixed, no cutting away of wood, and no fittings required, but simply to screw on. When ordering please say how light it burg.

Bronzed Iron, 18/-
Part Brass and Part Iron, 25/-



These efficient and useful devices become the property of A. Roberts, Dundee, M. J. Green, and others in the name of their practical ability, and their importance to the comfort. They are in for the best of every use for these purposes, and every recommendation. They are equally suited for use in Private or Commercial Establishments, Banks, Hotels, Schools, Hospitals, &c., and made to open Lights in any position.

We make a Special Cord for our Openers, very durable, which must not be cut or divided.

HILL AND HODGES' SUPERIOR PATENT FLOOR SPRING HINGES.

This technical drawing shows a cross-section of a mechanical assembly. On the left, a semi-circular component houses a piston or plunger. This is connected via a rod to a central mechanism featuring a coiled spring and various valves or ports. The entire assembly is mounted on a rectangular base with four circular fasteners at the corners. The drawing is highly detailed, showing internal components and fluid passages.

ARCHITECTS & CONTRACTORS are particularly asked to give these excellent Hinges a trial.

Amongst many of the places where these **HINGES** have been fixed, and given entire satisfaction, are the Municipal Buildings, West Hartlepool; Alliance Insurance Company, Birmingham; Birmingham "Exchange and Gazette" Office; Hotel Metropole; Monte Carlo; Harborne Hall; Maple & Co., London; Frisby, Dyke & Co., Liverpool; Wesleyan Chapel, Bilston; Board Schools, Handsworth; Yorkshire Penny Bank, Sheffield; Menston Asylum, near Leeds; Albion Hotel and Waterloo Bar, Birmingham.

No.	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th	17 th	18 th	19 th	20 th	21 st	22 nd	23 rd	24 th	25 th	26 th	27 th	28 th	29 th	30 th	31 st	32 nd	33 rd	34 th	35 th	36 th	37 th	38 th	39 th	40 th	41 st	42 nd	43 rd	44 th	45 th	46 th	47 th	48 th	49 th	50 th	51 st	52 nd	53 rd	54 th	55 th	56 th	57 th	58 th	59 th	60 th	61 st	62 nd	63 rd	64 th	65 th	66 th	67 th	68 th	69 th	70 th	71 st	72 nd	73 rd	74 th	75 th	76 th	77 th	78 th	79 th	80 th	81 st	82 nd	83 rd	84 th	85 th	86 th	87 th	88 th	89 th	90 th	91 st	92 nd	93 rd	94 th	95 th	96 th	97 th	98 th	99 th	100 th																																																																																																																																																	
No. 1180-28/8	27/0	27/0	27/0	27/0	28/8	30/0	40/0	42/0	44/0	46/0	48/0	50/0	52/0	54/0	56/0	58/0	60/0	62/0	64/0	66/0	68/0	70/0	72/0	74/0	76/0	78/0	80/0	82/0	84/0	86/0	88/0	90/0	92/0	94/0	96/0	98/0	100/0	102/0	104/0	106/0	108/0	110/0	112/0	114/0	116/0	118/0	120/0	122/0	124/0	126/0	128/0	130/0	132/0	134/0	136/0	138/0	140/0	142/0	144/0	146/0	148/0	150/0	152/0	154/0	156/0	158/0	160/0	162/0	164/0	166/0	168/0	170/0	172/0	174/0	176/0	178/0	180/0	182/0	184/0	186/0	188/0	190/0	192/0	194/0	196/0	198/0	200/0	202/0	204/0	206/0	208/0	210/0	212/0	214/0	216/0	218/0	220/0	222/0	224/0	226/0	228/0	230/0	232/0	234/0	236/0	238/0	240/0	242/0	244/0	246/0	248/0	250/0	252/0	254/0	256/0	258/0	260/0	262/0	264/0	266/0	268/0	270/0	272/0	274/0	276/0	278/0	280/0	282/0	284/0	286/0	288/0	290/0	292/0	294/0	296/0	298/0	300/0	302/0	304/0	306/0	308/0	310/0	312/0	314/0	316/0	318/0	320/0	322/0	324/0	326/0	328/0	330/0	332/0	334/0	336/0	338/0	340/0	342/0	344/0	346/0	348/0	350/0	352/0	354/0	356/0	358/0	360/0	362/0	364/0	366/0	368/0	370/0	372/0	374/0	376/0	378/0	380/0	382/0	384/0	386/0	388/0	390/0	392/0	394/0	396/0	398/0	400/0	402/0	404/0	406/0	408/0	410/0	412/0	414/0	416/0	418/0	420/0	422/0	424/0	426/0	428/0	430/0	432/0	434/0	436/0	438/0	440/0	442/0	444/0	446/0	448/0	450/0	452/0	454/0	456/0	458/0	460/0	462/0	464/0	466/0	468/0	470/0	472/0	474/0	476/0	478/0	480/0	482/0	484/0	486/0	488/0	490/0	492/0	494/0	496/0	498/0	500/0	502/0	504/0	506/0	508/0	510/0	512/0	514/0	516/0

No. 1161 is the very best quality that can be made with adjusting arrangement in Shoe. No. 1162 is same quality, only larger and much stronger, suitable for very heavy and wide soles. No. 1163 is an excellent Hinge, having all the advantages of 1161, except adjusting arrangement.

ROWLAND HODGES, FREDERICK STREET, BIRMINGHAM.

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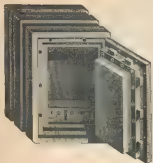
H—IRONMONGERY AND HARDWARE.

THOMAS PERRY & SON, Ld.

HIGHFIELDS WORKS,

BILSTON, STAFFORDSHIRE,

ENGLAND.



MAKERS OF

FIRE AND THIEF RESISTING

SAFES, DOORS,

AND

STRONG-ROOMS

LONDON OFFICE:

11, DYERS BUILDINGS, HOLBORN, E.C.

LIVERPOOL OFFICE:

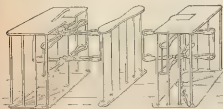
8, INDIA BUILDINGS, FENWICK STREET.

LISTS ON APPLICATION.

ESTABLISHED 1806.

SLARK'S PATENT SELF-REGISTERING IRON TURNSTILES,

As supplied to all the principal Institutes, Exhibitions, Picture Galleries, Cricket and Football Clubs throughout Great Britain and the Colonies,



The House of Commons, the National Gallery, the Crystal Palace, Madame Tussaud's, the South Kensington Museum, the Fisheries Hall, the Anglo-Dutch and other Exhibitions (South Kensington), the Brighton Aquarium, the Albert Palace, Hurlingham Club, the Royal Club, the Carpenters' Company, the Tooth Hall, Doulton's Pottery, Royal Institute of Painters in Water Colours, Duke of York's School, Ecclesiastical Art Exhibition,

ALSO THE FOLLOWING GREAT INTERNATIONAL EXHIBITIONS:

Paris, New Orleans, Brussels, Antwerp, Havre, Amsterdam, Hamburg, Melbourne, Sydney,
L.A.C., Queen's Club Kensington and other Athletic Grounds. Agricultural and Horse Shows, &c.

NEW PROSPECTUS (LONDON) FREE.

ESTABLISHED 1851 EXHIBITION.

ESTIMATES AND DRAWINGS FREE

TURNSTILES ON HIRE, £1 PER WEEK.

WALHAM GREEN, LONDON, S.W.

CONTRACTORS' COMPENDIUM.

F F

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H—IRONMONGERY AND HARDWARE.

MEAKIN & Co.,

84, BAKER ST., LONDON, W.

Self-Acting Sash Fastener and Opener.

Solid Frame "Oilable" Sash Pullies.

"Wedge" Line Holders.

LITHOGRAPHS, &c., FORWARDED ON REQUEST.

THE NORTON DOOR CHECK AND SPRING.

The parts of the device are so arranged together, that the greater the force exerted to close the door the greater resistance will be offered; consequently no slam or jar can occur. Many devices have been tried for this purpose, and all but the NORTON Door Check and Spring have been found wanting. It is very desirable for the doors of

Hotels, Churches, Theatres, Schoolhouses, Hospitals, Public Buildings of all kinds, Stores, Counting Rooms, Private Dwellings, Railroads, Steamboats, &c.

and, in fact, for all doors large or small, which are liable to slam. It is of special value upon Storm Doors, or doors exposed to high winds, for Screen Doors it has no equal, and operates equally well upon outside or inside doors. It is very simple, and not liable to get out of order, and may be attached to either side of a door.



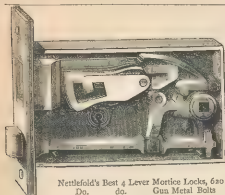
Following are the Prices established by each one of our Agents—

No. 0.	Suitable for Doors not exceeding 4 ft. in width by 3 in. in thickness	33/-
No. 1.	Suitable for Doors not exceeding 3½ ft. in width by 3 in. in thickness	30/-
No. 2.	Suitable for Doors not exceeding 2 ft. 6 in. in width by 2 in. in thickness	32/-
No. 3.	Suitable for Doors not exceeding 2 ft. 6 in. in width by 1½ in. in thickness	18/-
No. 4.	For Screen and other Light Doors	18/-

WHOLESALE AGENTS FOR EUROPE

RICHARDS, TERRY & CO., LIMITED, 46, HOLBORN VIADUCT, LONDON, E.C.

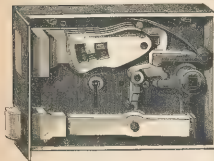
NETTLEFOLD & SONS, 54, HIGH HOLBORN, LONDON, W.C.



MORTICE LOCKS.

Nettlefold's Patent	2 Lever	6	7 in.
Mortice, 1617	...	5/3	7/3 each.
Nettlefold's Patent	4 Lever		
Mortice, 610	...	7/6	9/6 each
Half Rebating, 1/3 each extra.			

Nettlefold's Best 4 Lever Mortice Locks, 620	...	...	...	...	6	7 in.
Do. do. Gun Metal Bolts	...	...	...	...	10/6	12/6 each.
1/2 Rebating, 1/9 each extra.	...	...	...	...	12/6	15/- "
Mortice Dead Locks, 2 Lever	...	...	...	4	5	6 in.
Do. do. 4 do.	...	...	...	5/-	5/6	6/-
All Priced without Furniture.	...	...	...	6/6	7/-	7/6



RIM LOCKS.

Nettlefold's Patent 2 Lever Rim Locks, 734	...	6	7 in.
Tumbler Lock as above, No. 730	...	6 3	7/-
Best 4 Lever Rim Lock	...	4/6	5/-
	...	8, 6	10, 6
All Priced without Furniture.			

NETTLEFOLD'S PATENT LEVER RIM DEAD LOCKS.

4 Lever	...	...	...	...	...	4	6	7 in.
5 Lever and Guardian	...	...	...	...	...	7/6	10/-	12/-
5 " " 2 sided	...	...	...	...	...	—	17/6	—
	...	...	...	...	...	—	21/-	—

NETTLEFOLD'S PATENT LEVER NIGHT LATCHES.

4 in. 2 Lever Rim, 2 Keys	...	...	...	...	...	...	6/-
4 " 4 " " 2 " "	...	...	...	...	...	...	7/6
4 " 4 " Mortice 2 " "	...	...	...	...	...	...	10/-
4 1/2 " 5 " and Guardian Rim...	...	...	...	...	...	...	23/6

A GOOD ASSORTMENT IN STOCK.

NETTLEFOLD & SONS,

LEVER TILL LOCKS.



Nettlefold's Patent 1 Lever	...	...	16/-	2 1/2	2 1/2	3 in.	doz.
" " 2 "	...	...	19/-	19	20/-	2 1/2	"
" " 4 "	...	...	25/-	25/-	27/-	2 1/2	"
" " 5 " and Guardian	...	...	6/8	6/8	6/8	6/8 each.	"

Machine Made 2 Lever	...	...	23/-	2 1/2	2 1/2	3 in.	
" " 4 "	...	...	17/-	18/-	19/-	2 1/2	

LEVER OUT CUPBOARD LOCKS.



Nettlefold's Patent 1 Lever	...	...	16/-	3	3 1/2 in.	doz.
" " 2 "	...	...	21	22/-	26/-	"
" " 4 "	...	...	25/-	27/-	32/-	"
" " 5 " and Guardian	...	...	6/8		each	"

Machine Made, 2 Lever	...	...	14/-	3	3 1/2 in.	doz.
" " 4 "	...	...	17/6	20/-	21/6	"

LEVER DOUBLE HAND CUPBOARD LOCKS.



Nettlefold's Patent 1 Lever	...	...	20/-	3	3 1/2	4 in.	doz.
" " 2 "	...	...	22/6	25/-	28/6	4 1/2	"
" " 4 "	...	...	27/-	31/-	35/-	4 1/2	"

Machine Made 2 Lever	...	...	17/-	3	3 1/2	4 in.	
" " 4 "	...	...	20/-	22/-	24/-	"	

PEDESTAL, BOX, & LINK PLATE, same price as Double Hand Cupboard.

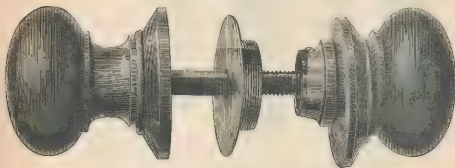
NETTLEFOLD'S PATENT 4 LEVER PAD LOCKS (2 Key'd).

2 1/2	2 1/2	2 1/2	2	2 1/2	2 1/2	3 in.
3/4	4/-	4/6	4/9	5/6	6/-	8/6 each.

A GOOD ASSORTMENT OF ABOVE ALWAYS IN STOCK. SPECIAL LOCKS MADE TO PATTERNS OR INSTRUCTIONS.

54, HIGH HOLBORN, LONDON, W.C.

NETTLEFOLD'S IMPROVED LOCK FURNITURE



PRICES.

DESCRIPTION.	1½ in.		1½ in.		2 in.		2½ in.		2½ in.		2½ in.		2½ in.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Plain Brass Rim Furniture ... Per set.	1	11	2	1	2	3	2	6	2	9	3	0		
Plain Brass Mortice " 2 Bolt set "	...	...	...	...	2	9	3	0	3	6	4	0		
Plain Oak " " " "	...	...	...	...	...	...	...	3	9	...	...	4	6	
Plain Ebony " " " "	...	...	...	...	...	...	...	3	9	...	...	4	6	
Plain White China " " " "	...	...	...	...	...	...	...	2	6	...	...	...	...	
Plain Black " " " "	...	...	...	...	...	...	...	2	9	...	...	...	...	
Plain Buff " " " "	...	...	...	...	...	...	...	2	9	...	...	...	...	
Plain White with 2 Gold Lines " " " "	...	...	...	...	...	...	...	3	3	...	...	...	...	
Plain Black " " " "	...	...	...	...	...	...	...	3	6	...	...	...	...	
Plain Buff " " " "	...	...	...	...	...	...	...	3	6	...	...	...	...	

SPECIAL QUOTATION FOR QUANTITIES.

H—IRONMONGERY AND HARDWARE.

NETTLEFOLD & SONS,

No. 702.
PITT'S SPINDLE.



Furniture, 2 Bolt set, $1\frac{1}{2}$ in. 6/- per set.
 " " " " 6/9 "
 Finger Plates... 1/- each.
 Levers ... 9/3 per pair.
 Shutter Knobs ... 1/6 each.

No. 701.
PITT'S SPINDLE.



Furniture, 2 Bolt set 7/3 per set.
 Finger Plates ... 2/- each.
 Levers ... 10/- per pair.
 Shutter Knobs ... 1/2 each.

No. 703.
NETTLEFOLD'S
IMPROVED SPINDLE.



SOLID OVAL KNOBS.
 Furniture, 2 Bolt set... 9/- per set.
 Finger Plates... 2/6 each.

No. 703.
PITT'S SPINDLE.



Furniture, 2 Bolt set, 5/3 per set.
 Finger Plates ... 4/3 each.
 Levers ... 10/6 per pair.
 Shutter Knobs ... 1/6 each.

No. 704.
PITT'S SPINDLE.



Furniture, 2 Bolt set 11/9 per set.
 Finger Plates ... 5/- each.
 Levers ... 14/6 per pair.
 Shutter Knobs ... 2/6 each.

No. 705.
PITT'S SPINDLE.



Furniture, 2 Bolt set 10/- per set.
 Finger Plates ... 6/6 each.
 Levers ... 11/9 per pair.
 Shutter Knobs ... 1/10 each.

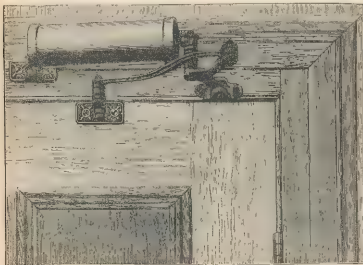
ALSO NUMEROUS OTHER PATTERNS FOR SELECTION.

H—IRONMONGERY AND HARDWARE.

54, HIGH HOLBORN, LONDON, W.C.

THE SHAW DOOR-CHECK & SPRING.

The same Spring can be applied either to the Hinge or Jamb Side of right or left-hand door.



SLAMMING OF DOORS & THE BREAKING OF GLASS RENDERED ABSOLUTELY IMPOSSIBLE.
INVALUABLE FOR PUBLIC BUILDINGS, CHURCHES, HOSPITALS, SCHOOLS, HOTELS, THEATRES,
AND PRIVATE DWELLINGS.

The small screw in end of cylinder alone regulates the action of the door. If you want the door to close quicker turn the screw to the left, if slower turn to right.

All bearings must be oiled occasionally. The door must work freely and not bind anywhere, and when the spring is properly attached it cannot fail to do the work for which it is intended in a proper manner.

PRINTED DIRECTIONS FOR ATTACHING PACKED WITH EACH SPRING.

PRICE LIST.

	EACH.
No. 2. For doors not exceeding 2 feet 6 inches wide, by 1½ inches thick ...	22/-
No. 2½. For doors not exceeding 2 feet 8 inches wide, by 2 inches thick ...	26/-
No. 3. For doors not exceeding 3½ feet wide, by 3 inches thick ...	30/-
No. 3½. For doors not exceeding 4 feet wide, by 3 inches thick ...	35/-

The above are for doors of regular sizes. For every two feet additional in height the same width as above, the next size larger is required to handle the door properly.

TERMS ON APPLICATION.

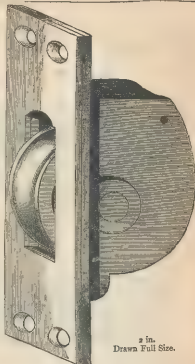
H-IRONMONGERY AND HARDWARE.

NETTLEFOLD & SONS,



$1\frac{3}{4}$ in.
Drawn Full Size.

No. 301. BRASS FACE & WHEEL.					
$1\frac{3}{4}$	$1\frac{1}{2}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$ in.
4/10	5/10	6/10	8/9	8/9	11/- per doz.
Lighter, No. 340					
$1\frac{1}{4}$	$1\frac{1}{8}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$ in.
4/-	4/8	5/10	7/6	7/6	
If Brass Bushed, No. 341.					
4/9	5/8	7/-	8/10	8/10	



2 in.
Drawn Full Size.

No. 304. BRASS FACE & WHEEL.					
$2\frac{1}{4}$	$2\frac{1}{8}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$ in.
5/3	6/3	7/3	9/8	9/8	12/- per doz.
If Brass Bushed, No. 310.					
$2\frac{1}{4}$	$2\frac{1}{8}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$	$\frac{5}{10}$ in.
6/3	7/6	8/9	11/3	11/3	14/- per doz.



PATENT SECRET PULLEY,
Iron $1\frac{1}{2}$ in. 2/- per doz.
Brass Face and Wheel, $1\frac{1}{2}$ in.
5/6 per doz.

Special Quotations for Large Quantities.

ALSO PULLEYS FOR CHAIN AND WIRE CORD IN STOCK.

54, HIGH HOLBORN, LONDON, W.C.

SASH FASTENERS.



678. $2\frac{1}{2}$ in., 6/9 per doz.



677. $2\frac{1}{2}$ in., 8/6 per doz.



4379. $2\frac{1}{2}$ in. 8/9, 3 in. 10/3 per doz.
Narrow, 1900. 3 " 10/-
C.K., 7227. $2\frac{1}{2}$ " 13/- 3 " 14/6 "

PARDON'S PATENT CHANNEL WEDGE



676. 3 in., 13/6 per doz.
If Reeded Knob, 14/6 "



1400. Stamped $2\frac{1}{2}$ in., 8/- per doz.
1404. Cast, 3 " 13/4 "



433. Cast, with China Knob
 $2\frac{1}{2}$ in., 10/6 per doz.

NETTLEFOLD'S PATENT SASH FASTENERS.



98. $2\frac{1}{2}$ in., 14/- per doz.
19. " 15/6 "

This Fastener secures windows from being opened by burglars from the outside, who force back the arms by means of a knife or similar instrument inserted between the sashes. Its action is perfectly simple, the ordinary movement of the arms being sufficient to lock and unlock. No second operation being required, the act of fastening the window necessarily locks it, while it can be as easily opened from the inside as when closed by an ordinary sash fastening.



97. 3 in., 19/6 per doz.
20. " 26/- "

SASH STOPS.

7922 $\frac{1}{2}$. Acorn, 5/- per doz.

3146. Drop, 2/10 per doz.

A large variety of Sash Fasteners besides above always in Stock.

ALL THE ABOVE KEPT IN STOCK.

H-IRONMONGERY AND HARDWARE.

NETTLEFOLD & SONS,

SASH LIFTS.



100.
7 1/2 2 in.
2/6 3/4 per doz.



STAMPED. 190.
7 1/2 1 1/2 2 in.
2/8 2/1 3/ per doz.



7469. CAST.
3/5 per doz.



7471.
4/6 per doz.



7473.

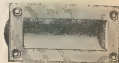
With Catch, 7/6 per doz.



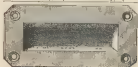
3197. 1 1/2 in.



0930. Cast Front.
2 3/8 4 in.
4/9 5/10 6/6 7/6 per doz.



2318. Machine Made.
3 3/8 4 in.
3/9 4/9 per doz.



3272.
3 4 in.
16/3 19/- per doz.



90. STAMPED.
3/3 per doz.



4983. CAST.
2 3/8 3 in.
5/- 6/3 per doz.

SASH HANDLES.

CABIN HOOKS.



1946.

Brass, 5/6 per doz.
Iron, 3/-



3181.
4 1/2 2 1/2 in.
2/9 3/8 doz.



2472.
6 6 7 8 in.
5/- 6/- 7/- 8/- doz.



1407.

2 2 3 3 1/2 4 5 6 7 8 in.
4/3 5/- 6/- 7/3 8/ 9/8 12/3
250. 6/- 7/3 9/3 10/6 12/6 13/6 14/9



250.

pr. doz.

ALL THE ABOVE KEPT IN STOCK.

54, HIGH HOLBORN, LONDON, W.C.

CASEMENT FASTENERS.



5096. Dead dipped, 8 per doz.



4309. Dead dipped, 11/6 per doz.
1853. Polished, 15/- "



668. Polished, 13/6 per doz.



4308. Polished, 10/9 per doz.



3033. Polished, 18/6 per doz.



2290. Polished, 16/- per doz.

CASEMENT STAYS.



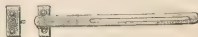
2275. Malleable Iron $\frac{9}{7/6}$ $\frac{10}{8/9}$ $\frac{12}{9/9}$ $\frac{15}{11/9}$ per doz.



5926. Polished Brass ... $\frac{10}{21/-}$ $\frac{12}{25/-}$ per doz.



2362. Wedge—Polished Brass ... $\frac{9}{21/9}$ $\frac{12}{23/6}$ in.



SHADBOLT'S FANLIGHT STAY.
Phosphor Bronze ... 13/6 per doz
Copper ... 9/3 "

ALL THE ABOVE IN STOCK. SPECIAL QUOTATIONS FOR QUANTITIES

NETTLEFOLD & SONS,

BRASS BUTTS AND BACKFLAPS.



240.

1 in. 2/- per doz.
 1 1/2 in. 2 3/4
 2 in. 3/3
 2 1/2 in. 4/3
 3 in. 4/9
 3 1/2 in. 7/3



2056.

1 1/2 in. 3/1 per doz.
 1 3/4 in. 3 3/4
 2 in. 5 3/4
 2 1/4 in. 6/-
 2 3/4 in. 6 6
 3 in. 9/-
 3 1/2 in. 12/8
 4 in. 20/-



07392.

2 1/2 in. 7/6 per doz.
 3 in. 13/-
 3 1/2 in. 17/3
 4 in. 27/6
 4 1/2 in. 48/-
 5 in. 58/6



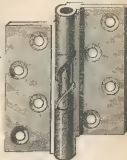
198a.

per doz.
 2 in. 7/-
 2 1/2 in. 10/6
 3 in. 15
 3 1/2 in. 25/-
 4 in. 35/-
 4 1/2 in. 50/-
 5 in. 60/-
 6 in. 90/-



2048.

per doz.
 1 in. 5/6
 1 1/2 in. 6/9
 1 3/4 in. 7/9
 1 1/2 in. 10/-
 2 in. 13/9



3050. SKEW.

per pair.
 3 1/2 in. 9 3
 4 in. 11 6
 4 1/2 in. 14/-
 5 in. 16 9

N.B.—All the above drawings are half size.

Stamped Brass Butts.

3/2	3/6	3/9	5/3	7/6	12/6	13/6 per gross.
-----	-----	-----	-----	-----	------	-----------------

Machine-made Brass Butts.

1 1/2	2	2 1/2	3 in.
Sanded 2/9	3/9	5/9	9/3 per doz.
Polished 3/8	4/10	7/3	11/-

Screen Hinges, Double Action.

141.	3/4	3/3	3/6	4/-	1 1/2 in.
					4/8 each.

2 1/2	1 1/2	1 3/4	2 1/2	3 in.
3/4	4/-	4/6	5/-	6/2
				8/-
				11/6
				29/- per doz.

Single Steel Washer Butts.

2838.	1/10	2/6	3/4	4/9	5 in.
01945.	Projecting	8/-	9/9	12/-	6/3 per pair.

Double Steel Washer Butts.

6479.	3/4	4/6	4 1/2	5 in.
1945.	Projecting	6/6	8/9	10/5
				7/3 per pair

Broad Butts

4 x 5 in. 6/- per pair, 4 1/2 x 6 in. 7/9 per pair.

Counter-Flap Hinges

1 1/2 in. 21/6. 1 3/4 in. 27/- per doz.

Pianoforte Hinges, and all kinds of Camera Hinges, &c., &c.

ALL THE ABOVE KEPT IN STOCK.

SPECIAL HINGES MADE TO PATTERN.

54, HIGH HOLBORN, LONDON, W.

SHOP SHUTTER SHOES AND FASTENERS, with Brass Pivots.



These Shoes, which entirely supersede the use of Shutter Bars, are now very generally used.

The Illustrations show the shoe required for a window where the shutters are put up, beginning at the right hand looking from the street. For the first or right hand shutter, use the shoes A and D with a brass pivot; for the second and all intermediate shutters use C and E, and for the last shutter use E and B.

If the shutters are put up from left to right, use the same kind of shoes reverse hand.

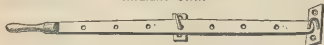
Where the shutters are put up partly from the right and partly from the left, finishing in the middle, use the shoes as above described right and left, and for the middle or last shutter use E or F, and in that case the shoe B will not be required. In every case a brass pivot is required for all the shutters except the last, which is fastened with a bolt and nut.

When sent out the packages of shoes are marked as follows—Shoes A and B in one package marked "Plain Right" or "Plain Left," C and D are marked "Right Rebated" and "Left Rebated," and E and F are marked "Lasts."

	A	B	C	D	E	F	
2986.							
1 in.	8d.	7d.	8d.	7d.	8d.	8d.	each.
1 1/2 "	9 1/2 d.	8d.	9 1/2 d.	8d.	8d.	8d.	"
1 1/2 "	11d.	9d.	11d.	9 1/2 d.	9 1/2 d.	9 1/2 d.	"

Brass pivots 4d. each.

SKYLIGHT STAY.



12	15	18	21	24	27	30	36 in.
10/3	12/9	14/6	16/3	18/-	21/-	24/-	31/- per doz.

QUADRANT STAY.

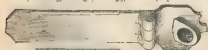
3694.

8	10	12	15	18	21	24 in.
5/9	6/6	7/9	9/-	11/-	14/-	19/6 per doz.

LOCKING BARS.



10	12	14	16	18 in.
18/-	25/-	30/-	39/-	62/- per doz.



10	12	14	16 in.
23/-	27/-	31/-	53/- per doz.

STABLE LATCH.

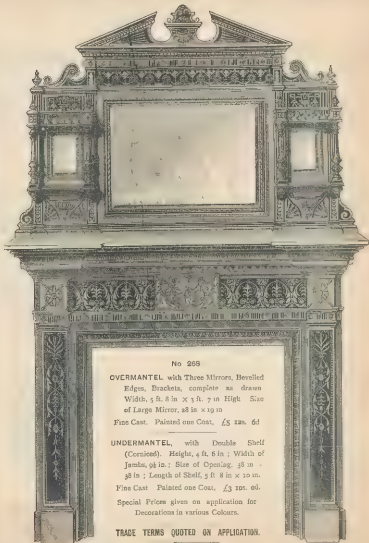


3438.
4 1/2 x 3 1/2 x 8 in.
26/- per doz.

THE ABOVE KEPT IN STOCK.

H-IRONMONGERY AND HARDWARE.

IRON CHIMNEY PIECE & OVERMANTEL.



O'BRIEN, THOMAS & Co's

234

OFFICES, WAREHOUSES, & SHOWROOMS,

228 AND 229, UPPER THAMES STREET, LONDON, E.C.

H - IRONMONGERY AND HARDWARE.

REGISTERED ART BRONZED TILE GRATE

WITH LIFT-OFF CANOPY.



322.

SIZES MADE 38 to 40 inches.

Register Tile Stove with Lift-off Canopy and Fitted Front Moulding, with Improved Solid Brick Back and Vertical Bars and Brass Knobs, Grate Bottom, and Fret, prepared for either 6 or 8 inch Tiles.

	£	s.	d.
Best finish, Berlin Black	4	14	0
If Electro Victoria Bronze	6	12	0
If Registered Art Bronze	7	0	0
If Cast Brass, Mouldings and Canopy	13	10	0
If with 8 inch Tiles, extra from...	2	0	0

TRADE TERMS QUOTED ON APPLICATION.

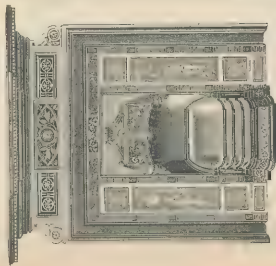
O'BRIEN, THOMAS & Co.'s

OFFICES, WAREHOUSE, & SHOWROOMS.
228 & 229, UPPER THAMES STREET, LONDON, E.C.

235

MANTEL REGISTER,
WITH DOUBLE SHELF (CORNICED)

236



No. 305.

Mantel piece with stove complete, fitted with Cast iron Panels on the flut
with cast iron end doors and Base. Back Back and Sides,

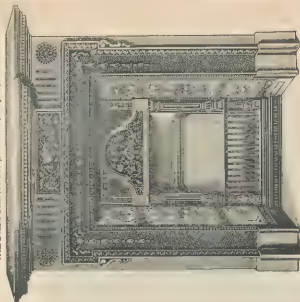
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Price Cost Stop Massed Coal Price	2	6	0
3rd March 1890	2	10	0
2nd March 1891	2	10	0
1st March 1892	2	10	0
1st March 1893	2	10	0
1st March 1894	2	10	0
1st March 1895	2	10	0
1st March 1896	2	10	0
1st March 1897	2	10	0
1st March 1898	2	10	0
1st March 1899	2	10	0
1st March 1900	2	10	0
1st March 1901	2	10	0
1st March 1902	2	10	0
1st March 1903	2	10	0
1st March 1904	2	10	0
1st March 1905	2	10	0
1st March 1906	2	10	0
1st March 1907	2	10	0
1st March 1908	2	10	0
1st March 1909	2	10	0
1st March 1910	2	10	0
1st March 1911	2	10	0
1st March 1912	2	10	0
1st March 1913	2	10	0
1st March 1914	2	10	0
1st March 1915	2	10	0
1st March 1916	2	10	0
1st March 1917	2	10	0
1st March 1918	2	10	0
1st March 1919	2	10	0
1st March 1920	2	10	0
1st March 1921	2	10	0
1st March 1922	2	10	0
1st March 1923	2	10	0
1st March 1924	2	10	0
1st March 1925	2	10	0
1st March 1926	2	10	0
1st March 1927	2	10	0
1st March 1928	2	10	0
1st March 1929	2	10	0
1st March 1930	2	10	0
1st March 1931	2	10	0
1st March 1932	2	10	0
1st March 1933	2	10	0
1st March 1934	2	10	0
1st March 1935	2	10	0
1st March 1936	2	10	0
1st March 1937	2	10	0
1st March 1938	2	10	0
1st March 1939	2	10	0
1st March 1940	2	10	0
1st March 1941	2	10	0
1st March 1942	2	10	0
1st March 1943	2	10	0
1st March 1944	2	10	0
1st March 1945	2	10	0
1st March 1946	2	10	0
1st March 1947	2	10	0
1st March 1948	2	10	0
1st March 1949	2	10	0
1st March 1950	2	10	0
1st March 1951	2	10	0
1st March 1952	2	10	0
1st March 1953	2	10	0
1st March 1954	2	10	0
1st March 1955	2	10	0
1st March 1956	2	10	0
1st March 1957	2	10	0
1st March 1958	2	10	0
1st March 1959	2	10	0
1st March 1960	2	10	0
1st March 1961	2	10	0
1st March 1962	2	10	0
1st March 1963	2	10	0
1st March 1964	2	10	0
1st March 1965	2	10	0
1st March 1966	2	10	0
1st March 1967	2	10	0
1st March 1968	2	10	0
1st March 1969	2	10	0
1st March 1970	2	10	0
1st March 1971	2	10	0
1st March 1972	2	10	0
1st March 1973	2	10	0
1st March 1974	2	10	0
1st March 1975	2	10	0
1st March 1976	2	10	0
1st March 1977	2	10	0
1st March 1978	2	10	0
1st March 1979	2	10	0
1st March 1980	2	10	0
1st March 1981	2	10	0
1st March 1982	2	10	0
1st March 1983	2	10	0

West Finch

REGISTERED DESIGN, ADAM MANTEL,

With Double Shelf (Corniced), and Stove, complete, as shown



No. 3326

S.L.P. 303 + 98.26 = 434.46 b.d.t., N₂O₂ = 0.746 g.c., 3.12 m
Partial vol's, Part Cost : Cost lost . . . \$15.00

[illegible][illegible]

(f_{θ}, g_{θ}) also increases (decreases) and (decreases (increases))

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS & CO.'S Offices, Warehouses and Show Rooms, 228 & 229, UPPER THAMES STREET, LONDON, E.C.

HIGH CLASS INTERIOR, UNIQUE DESIGN.



With Art J Canopy and Pillars, fitted Bars and Fret, Slow Combustion Heat in or Grate and Fret, and Inside Grid to Bars.

No. 298c.

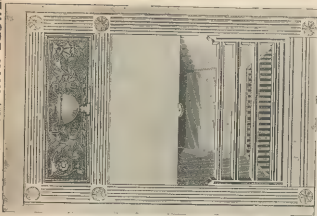
Sizes made 24 in. x 36 in. or 36 in.

Best Fitted, 1. Art-Bronzed Canopy, Pillars, and Fret £4 14 0
If Art Bronze, Copper on Brass " " 5 4 0
If Cast Brass, Chased and Finished in Best Style " " 8 13 9

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS, & CO.'S Offices, Warehouses and Showrooms, 228 & 229, UPPER THAMES STREET, LONDON, E.C.

PARSONS' GRATE, WITH BLOWER.



No. 289.

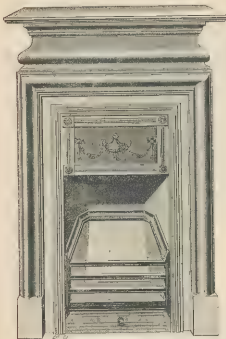
REGISTERED INTERIOR, with Tiles, Enamel, or Paint, and a Blower, as per drawing. The Blower is in the parts, Grate Bottom and Fret, with a Blower, as per drawing.

If Laid at 6 in. x 36 in. or 36 in. x 36 in.

Size	Price
24 x 36	£2 7 0
36 x 36	£3 10 0
48 x 36	£4 13 0
60 x 36	£5 13 0
72 x 36	£6 13 0
84 x 36	£7 13 0
96 x 36	£8 13 0
108 x 36	£9 13 0
120 x 36	£10 13 0
132 x 36	£11 13 0
144 x 36	£12 13 0
156 x 36	£13 13 0
168 x 36	£14 13 0
180 x 36	£15 13 0
192 x 36	£16 13 0
204 x 36	£17 13 0
216 x 36	£18 13 0
228 x 36	£19 13 0
240 x 36	£20 13 0
252 x 36	£21 13 0
264 x 36	£22 13 0
276 x 36	£23 13 0
288 x 36	£24 13 0
300 x 36	£25 13 0
312 x 36	£26 13 0
324 x 36	£27 13 0
336 x 36	£28 13 0
348 x 36	£29 13 0
360 x 36	£30 13 0
372 x 36	£31 13 0
384 x 36	£32 13 0
396 x 36	£33 13 0
408 x 36	£34 13 0
420 x 36	£35 13 0
432 x 36	£36 13 0
444 x 36	£37 13 0
456 x 36	£38 13 0
468 x 36	£39 13 0
480 x 36	£40 13 0
492 x 36	£41 13 0
504 x 36	£42 13 0
516 x 36	£43 13 0
528 x 36	£44 13 0
540 x 36	£45 13 0
552 x 36	£46 13 0
564 x 36	£47 13 0
576 x 36	£48 13 0
588 x 36	£49 13 0
600 x 36	£50 13 0
612 x 36	£51 13 0
624 x 36	£52 13 0
636 x 36	£53 13 0
648 x 36	£54 13 0
660 x 36	£55 13 0
672 x 36	£56 13 0
684 x 36	£57 13 0
696 x 36	£58 13 0
708 x 36	£59 13 0
720 x 36	£60 13 0
732 x 36	£61 13 0
744 x 36	£62 13 0
756 x 36	£63 13 0
768 x 36	£64 13 0
780 x 36	£65 13 0
792 x 36	£66 13 0
804 x 36	£67 13 0
816 x 36	£68 13 0
828 x 36	£69 13 0
840 x 36	£70 13 0
852 x 36	£71 13 0
864 x 36	£72 13 0
876 x 36	£73 13 0
888 x 36	£74 13 0
900 x 36	£75 13 0
912 x 36	£76 13 0
924 x 36	£77 13 0
936 x 36	£78 13 0
948 x 36	£79 13 0
960 x 36	£80 13 0
972 x 36	£81 13 0
984 x 36	£82 13 0
996 x 36	£83 13 0
1008 x 36	£84 13 0
1020 x 36	£85 13 0
1032 x 36	£86 13 0
1044 x 36	£87 13 0
1056 x 36	£88 13 0
1068 x 36	£89 13 0
1080 x 36	£90 13 0
1092 x 36	£91 13 0
1104 x 36	£92 13 0
1116 x 36	£93 13 0
1128 x 36	£94 13 0
1140 x 36	£95 13 0
1152 x 36	£96 13 0
1164 x 36	£97 13 0
1176 x 36	£98 13 0
1188 x 36	£99 13 0
1200 x 36	£100 13 0

More Blowers, 5/9 each.

CLASSICAL BED-ROOM MANTEL REGISTERS.

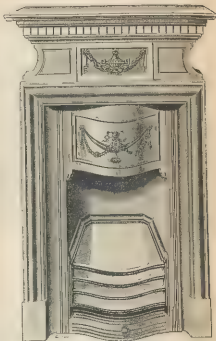


No. 350.

MANTEL REGISTER with Double Shelf, corniced, with Improved Chair Brick Back and Brick Sides, Slow Combustion, or Grate and Fret.

Size 30 x 47 ins.; Shelf 32 x 48 ins. wide; 16 in. Fire

Fine Cast, one coat of paint £1 17 6
If with Blower extra 0 5 9



No. 351.

MANTEL REGISTER, with Double Shelf, corniced, with Improved Chair Brick Back and Brick Sides, Slow Combustion, or Grate and Fret.

Size 30 x 47 ins.; Shelf 32 x 48 ins. wide; 16 in. Fire

Fine Cast, one coat of paint £1 17 6
If with Blower extra 0 5 9

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS & Co.'s

238

OFFICES, WAREHOUSE, & SHOWROOMS
226 & 228, UPPER THAMES STREET, LONDON, E.C.

THE "STERLING" TILE REGISTER.

WITH PATENT MOVEABLE CANOPY & SLIDING BLOWER & SOLID FIRE BRICK BACK.

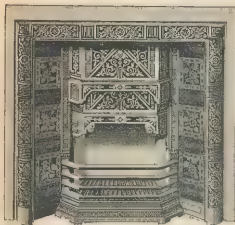


Fig. 1.

The above Stove meets a long-felt want for a Stove that will cure a smoky chimney and quickly produce a bright fire where there is a sluggish draught, and yet give free access to the chimney for sweeping or for fixing the Grate.

Fig. 1 shows the Stove complete, with Blower partly drawn down.

Fig. 3 shows the Interior of Stove, with the Canopy (which is hooked on) removed and the Blower partly removed, which is done in a very simple manner, as follows:—

After removing the Canopy by a slight upward, outward, and then downward motion, the inner Canopy or Blower should be let down to its lowest point, when, by a slight movement to the left, the right hand side will be liberated from its slide and the whole can be removed, as shown in drawing, Fig. 3.

The Blower cannot by any means be removed out of its slides until the removal of the Canopy.

Fig. 2 shows section of Stove with both Canopy and Blower removed, giving free access to the chimney.

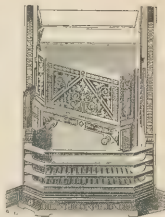


Fig. 3.
View of Interior, showing Canopy removed and Blower partly removed.



Fig. 2.
Section showing both Canopy and Blower removed.

PRICES.—Prepared for 6 in. Tiles.

Best Finish Berlin Black and Gilt relief	...	...	...	£4 4 6
2nd Finish	"	"	...	3 10 0

Tiles from 7/6 per set.

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS & Co's

G G 2

OFFICES, SHOWROOMS & WAREHOUSES:
225 & 229, UPPER THAMES STREET, LONDON, E.C.
239

H-IRONMONGERY AND HARDWARE.

THE PARSON'S STOVE.

The Blowers of these PARSONS' Stoves are of Cast Iron, and can be adjusted to any position. It is impossible for them to get out of order, or to bend through expansion or contraction of metal.

No. 50 Design.

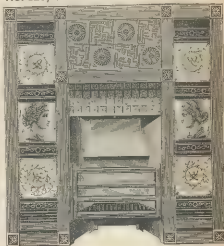


Sizes 18 20 22 24 ins.

Fine Cast ..	15/-	16/3	17/3	20/-	each
Second Finish ..	27/6	28/9	30/-	31/3	"

If with Milner Back Brick, as shown in No. 126 Design, 5/- extra.

No. 126, With Milner Fire Brick Back.



Sizes 22 30 32 34 36 38 ins.

Fine Cast ..	22/6	29/6	25/3	23/9	27/-	each.
Second Finish ..	33/9	35/6	37/6	38/6	40/-	"

These quotations do not include Tiles, which are left to selection, and can be supplied in a very large variety of patterns and qualities.

OUR SHOW ROOMS

Contain, a very large selection of the following Goods—

CHIMNEY PIECES, in Wood, Iron, Marble of all kinds, and Enamelled Slate. OVERMANTELS, in Wood and Iron to correspond. TILE PANELS FOR STOVES, AND HEARTHS TO MATCH, from the cheapest printed qualities to the most expensive hand-painted designs. CURB FENDERS in Marble, Iron and Brass. DOG STOVES, INTERIORS, BATHS, in Metallic, Loozende and Porcelain Enamels of the first quality.

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS & Co.'s

240

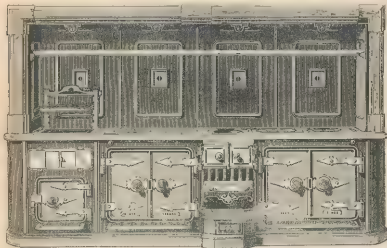
OFFICES, WAREHOUSES & SHOWROOMS.
228 & 229 UPPER THAMES STREET, LONDON E.C.

H IRONMONGERY AND HARDWARE.

THE "HOTEL" KITCHENER.

This is a superior class Kitcheners, designed expressly for use in Hospitals, Hotels, Workhouses, or other large Institutions.

The Hot Plate is 4 of an inch thick, and framed, the centre plates and rings being removable. The strength of this Kitcheners may be judged by the fact that the 8 feet size exceeds 20 cwt. in weight.



No. of Feet	Width	1. 5 ft. Ovens Top	2 ft. 6 in. High	SACRED OVEN			HARD OVEN, OR HOT CLOSET			FIRE Walls	CHILL Depth	HOT PLATE Depth	HOT Height	COVER Height	PRICE With Castings, etc.
				Width	Depth	High	Width	Depth	High						
4 ft. 6 in.	24	22	22	22	22	22	22	22	22	22	22	22	22	22	22
6 ft. 0 in.	30	28	28	28	28	28	28	28	28	28	28	28	28	28	28
8 ft. 0 in.	36	34	34	34	34	34	34	34	34	34	34	34	34	34	34
10 ft. 0 in.	42	40	40	40	40	40	40	40	40	40	40	40	40	40	40
12 ft. 0 in.	48	46	46	46	46	46	46	46	46	46	46	46	46	46	46
14 ft. 0 in.	54	52	52	52	52	52	52	52	52	52	52	52	52	52	52
16 ft. 0 in.	60	58	58	58	58	58	58	58	58	58	58	58	58	58	58
18 ft. 0 in.	66	64	64	64	64	64	64	64	64	64	64	64	64	64	64
20 ft. 0 in.	72	70	70	70	70	70	70	70	70	70	70	70	70	70	70

These Dimensions may be varied to suit special requirements.

Largest Stock of Kitcheners of all Qualities and Sizes in the United Kingdom.

COTTAGE KITCHENER, from £1 12s. each, according to size and quality.

VILLA KITCHENERS, from £3 15s. each Ditto.

MANSION KITCHENERS, from £7 10s. to £52 10s. Ditto.

.....
32 PATTERNS AND QUALITIES TO SELECT FROM.
.....

STOCK OF 4,000 KITCHENERS ALWAYS ON HAND IN OUR LONDON WAREHOUSES.

TRADE TERMS QUOTED ON APPLICATION.

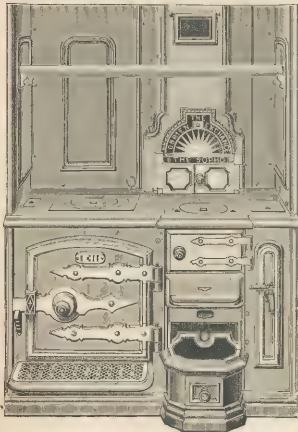
O'BRIEN, THOMAS & Co.'s

OFFICES WAREHOUSES & SHOWROOMS:
228 & 229, UPPER THAMES STREET, LONDON, E.C.
241

H-IRONMONGERY AND HARDWARE.

THE "SOPHO."

* NEW REGISTERED SELF-SETTING KITCHENER. *



Fitted with the
"O'Brien Exchange" Convertible
Open & Close Fire Arrangement.

SIMPLICITY IN CONVERTING FROM A CLOSE TO AN OPEN FIRE.

The arrangement for converting from a Close to an Open Fire is so simple that the most inexperienced domestic can easily work it. The alteration is effected by opening the two small doors at back, and placing the centre piece of fire cover or hot plate on the top of the doors; there is, therefore, no part of the Range left lying uselessly in the way.

PERFECT VENTILATION.

The principal objection to a close Fire Range has been got rid of by the introduction of a ventilator on the flue, by which means the kitchen can be kept perfectly cool and free from smells.

These Prices are with Side Boiler. If fitted with L. Boiler, 5s. extra.

Height to Hob, 24 inches; Depth of Hob, 17½ inches; Height of Covers, 26 inches; Height of Funnel, 29 inches.

SIZES		30	33	36	39	42 inches
With Skirting	Oven and Sham	72/0	76/3	80/0	84/6	88/9 each.
	Oven and Boiler	80/0	83/0	87/6	91/3	97/0 "
With Covers and Plate Rack	Oven and Sham	93/0	97/0	100/0	106/3	110/3 "
	Oven and Boiler	102/0	105/0	109/6	113/0	"

If fitted with L. Boiler instead of Square Boiler, 7s. extra.

TRADE TERMS QUOTED ON APPLICATION.

O'BRIEN, THOMAS & Co.'S

OFFICES, WAREHOUSES, & SHOWROOMS.

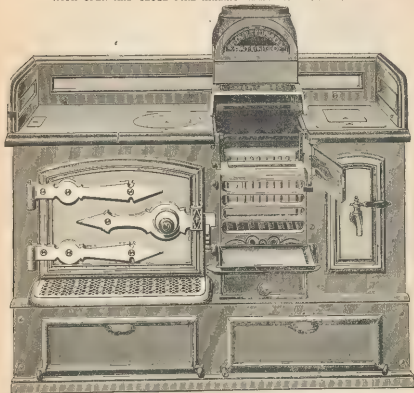
228 AND 229, UPPER THAMES STREET, LONDON, E.C.

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THE "MERCADOR."

NEW REGISTERED PORTABLE COOKING RANGE, (PROVISIONALLY PATENTED.)

WITH OPEN AND CLOSE FIRE ARRANGEMENT AND HOT CLOSET.



The above Drawing represents THE MERCADOR "in use as an open fire and fitted with Skirtings round back and sides It can be converted to a Close Fire INSTANTANEOUSLY.

The following quotations are for the MERCADOR "Range fitted on Legs instead of with Hot Closets) and without Skirtings being the form in which it is generally sold.

	20	24	26	27	28	30	32	33	34	36	38	40	42 inches
Oven and Shorn	33/9	39/6	42/3	44/3	47/-	52/6	55/-	55/-	58/-	68/-	68/9	82/6	88/-
Oven and Boiler	..	..	..	..	55/-	58/-	58/-	63/-	67/-	67/-	77/-	82/6	88/-

EXTRA FOR HOT CLOSETS.

Sizes from 20 to 30 inches, 12/6 extra.

Sizes from 32 to 36 inches, 13/6 extra.

Extra for Skirtings in all sizes 7/6.

Sizes from 38 to 42 inches, 15/6 extra.

TRADE TERMS QUOTED ON APPLICATION.

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OFFICES, WAREHOUSES & SHOWROOMS:

223 & 225 UPPER THAMES STREET, LONDON, E.C.
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H-IRONMONGERY AND HARDWARE.

IMPROVED STABLE FITTINGS.

No. 2. MANGER SET.

Right or Left Hand.



Black	£1 10 0
Galvanized	2 11 3
Porcelain Enamelled	3 0 0

No. 22. MANGER SET.

Right or Left Hand.



Black	/ 0 17 3
Galvanized	1 13 0
Porcelain Enamelled	1 10 0

No. 17. MANGER SET.

Right or Left Hand.



Manger Plate, with Manger and Hay Rack, with Collars on 4 in. Bars and Top Capping, with Sloping Grid and Recess with Door

6 ft. to 6 ft. 6 ins. long.

Black	£2 13 6
Galvanized	4 2 6
Porcelain Enamelled	4 6 6

No. 25. MANGER SET.

Right or Left Hand.



Manger and Hay Rack, with Sloping Grid

Black	£2 3 0
Galvanized	2 13 6
Porcelain Enamelled	2 10 0

LOOSE BOX DIVISIONS, STALL DIVISIONS,

MALEABLE STABLE BRACKETS OF ALL KINDS

Straight and Spiral Staircases. Rain Water Pipes, Gutters and Connections.

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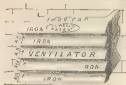
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VENTILATING.

COWELL'S PATENT VENTILATING AIR BRICK.

FOR ADMISSION OF FRESH AIR THROUGH EXTERNAL WALLS WITHOUT WET



These Air Bricks will be found far preferable to any kind as it is possible for rain to get into them. They are made on the principle of a ventilator, and one air not lapping the other. In addition to the advantage of excluding rain, this mode of construction increases the draught considerably, and therefore a fresher stronger current of fresh air drawn in and damp walls become dry after these are fixed.

Size 9x3	9x6	12x6 inches	Size 9x3	9x6	12x6 inches
Painted .. 6/-	15/-	22/6 per doz.	Galvanized .. 13/-	24/-	36/- per doz

IMPROVED MICA OUTLET VENTILATORS.

(BOWEN'S PATENT)

BACK OF VENTILATOR.

[WITH BRASS TRELLIS FRONT]

FRONT OF VENTILATOR. (11x7).

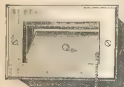


For the discharge of Heated and Ventilated Air from Rooms, to the Outside. The Valves are made of Mica, which is light, Resistant, and Inexpensive, and are so sensitive that they open with the slightest appreciable up-current in the air, immediately close against down draughts and effectually prevent any smoke entering the room.

	Size of Front	9x3	9x6	12x7	12x9	12x11	12x13
Plain Iron		3/3	4/9	6/6	8/0	10/6	12/3
With Brass Trellis Front		5/0	7/3	9/6	12/3	14/6	16/3

ARNOTT'S VENTILATORS.

For insertion into the Chimney Breast to carry off the heated and impure air from the top of the room.



Size of Box	9x6	11x8	11x10
Price	5/6	7/3	

GALVANIZED IRON FRESH AIR MICA INLET VALVE.

For Ventilating Drains and Sewers by the admission of a Current of Fresh Air.



VERTICAL

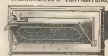
For 3 inch Pipe	7/3
For 4 ..	9/-



HORIZONTAL

For 3 in Pipe	6/3
For 4 ..	7/6

SHERRINGHAM'S VENTILATORS.



For the introduction of Fresh Air through an external wall without a Gable End.

Size of Box	9x3	9x6	12x6
Front	12x11	12x13	12x15
Pieces ..	3/7	4/10	6/6
Weights ..	6	7	7 1/2
Leading Pulleys ..	5	5	5

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- 3 MANTLE REGISTERS AND OVERMANTELS
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- 5 TILES FOR STOVES AND HEARTHES
- 6 SUNDRY STOVES
- 7 ENGLISH OPEN AND CLOSE FIRE RANGES
- 8 AMERICAN STOVES AND RANGES
- 9 RAILINGS AND GATES
- 10 STABLE FITTINGS

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- 12 SANITARY GOODS
- 13 GALVANIZED IRONWORK
- 14 RESTAURANT TABLES & GARDEN REQUISITES
- 15 CHIMNEY PIECES, CURE FENDERS, & FIRE IRON RESTS
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LARGER CAPACITY AT LESS COST

It is the aid of these from Wedges set on the back of the ordinary gutter, so that when fixed it has the capacity of a MOUNTED GUTTER, while the cost is only that of O.G.

The Wedges, 2 in. 2 in. the center as in the illustration, prevent the sliding of bracken, when a small wedge is placed against it.

Can be fixed WITHOUT LOSS OF TIME, as wedging up is unnecessary.

It has the capacity of a size larger Gutter, viz., 4 in. equal to 2 1/2 in., 4 1/2 in. equal to 5 in., and so on.

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NO SMOKE, NO DUST, NO WASTE.

The "Nautilus" Dog-Grate.

PATENT.



PERFECTLY WARMS THE ROOM
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Portable fire-brick lined, slow combustion. Radiates heat directly from a cheerful open fire.

The most artistic, scientific, economic and cleanly of all domestic appliances

Being on wheels it may be removed in the summer, and its place filled with ferns, &c.

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Enveloped in Metal Coil Conductors

Immense Heating Surface.

Absolutely Safe.

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Burns continuously throughout the winter.

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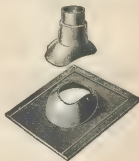
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Passes a stove-pipe through a roof with ABSOLUTE
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"SOU-WESTER" ROOF PLATE

(PATENT)



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5 ft. 9 in. x 2 ft. 3 in.	16 0 0	19 0 0	18 0 0	21 0 0	27 0 0	30 0 0	21 0 0		
6 ft. x 2 ft. 6 in.	17 0 0	20 0 0	20 0 0	24 0 0	30 0 0	33 0 0	22 0 0		
6 ft. x 2 ft. 9 in.	18 10 0	22 0 0	22 0 0	26 0 0	32 0 0	35 0 0	23 10 0		
6 ft. 3 in. x 2 ft. 9 in.	20 0 0	24 0 0	24 0 0	28 0 0	34 0 0	38 0 0	25 0 0		
6 ft. 3 in. x 2 ft. 3 in.	21 10 0	25 0 0	26 0 0	30 0 0	36 0 0	40 0 0	26 0 0		
6 ft. 6 in. x 3 ft.	23 0 0	27 0 0	28 0 0	32 0 0	38 0 0	43 0 0	28 0 0		

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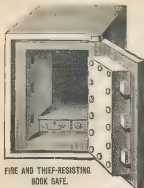
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FIREPROOF
DEED
CHEST.

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Iron Doors & Frames,
SLIDING DOORS,
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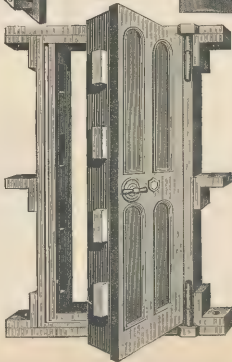


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Melbourne,
1888.



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PATENTED IN
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AND AUSTRALIA.

TUBULAR REVERSIBLE LOCK

BY ROYAL LETTERS

GOLD MEDAL
PARIS
1889



LONDON, 1882



PATENT

Awarded Two Prize Medals by
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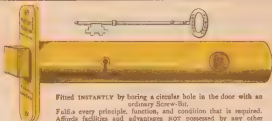
LONDON, 1887

GOLD MEDAL
PARIS
1889

FIRST AWARD, MELBOURNE EXHIBITION, 1888.

Declared by Experts to be the most valuable invention in Locks (for universal utility) of the present century

The Patent Tubular Reversible Mortice Lock



Fitted INSTANTLY by boring a circular hole in the door with an ordinary Screw-Bit.
Falls every principle, function, and condition that is required.
Affords facilities and advantages NOT possessed by any other House Lock in general use.

The Patent Tubular Roller Lock

FOR SASH DOORS, DOUBLE DOORS, AND ALL DOORS OPENING AND CLOSING BY PUSH OR PULL.



THREE CIRCLES,
made by the same Screw-Bit,
produce the exact incision for the insertion
of the Pure Plate.



The Roller is thrown forward
in the act of locking.



THREE CIRCLES,
made by the same Screw-Bit,
produce the exact incision for the insertion
of the Striking Plate.



TEMPLATE.

For instantly ascertaining where to make the Key-hole
and Spindle-hole through the wood part of the door.

PRICES.

Reversible Mortice Lock.

6 in. x 1 in. - 60 - per doz.
5 in. x 3/4 in. - 54 - ..

Roller Lock.

2 1/2 in. x 1 in. - 60 - per doz.
2 1/2 in. x 3/4 in. - 48 - ..

A Screw Bit Guide and Template supplied Gratis
with each Box of 6.

Extra Guides or Template	4d. each
Screw Bits - 4 in.	7
Screw Drivers 1 1/2 in.	6d.



GUIDE

Temporarily screwed to the door; the open tube part
standing out from the door, to ensure the Screw-Bit
driving straight in boring out the circular chamber
for the Lock's reception.

SECURE AND PERMANENT ATTACHMENT OF THE DOOR HANDLES.

Unobtainable
in equal perfection
by any other form
of Lock
yet invented.



The only form
permitting the use
of long screws for
fixing the Handles
to the door.

PRESENT UNIVERSALLY DEFECTIVE MEANS OF FITTING DOOR HANDLES.

Example
showing the
impossibility of
using
long screws.



The intervention
of the body of the
Lock renders the
use of long screws
impossible.

NOTICE.

UP to this present, 20,000 Locks have been sold, without the assistance of any Travellers, but on reputation only !

Every part of the Lock is Machine made, Interchangeable, and fits accurately into the position designed for it.

1,000 Testimonials from Architects, Builders, Contractors, Iron-mongers, Engineers, &c., testify to its superior excellence.

The Originals may be seen on application at the Syndicate's Offices.

Every Lock is tested, proved, and guaranteed.

For Suites of Rooms, Offices, Chambers, Prisons, Cells, &c., Locks can be supplied to a practically unlimited extent, every Lock being different and requiring a separate key, and yet all being able to be locked or unlocked by one master key.

Locks can be had for Asylums, &c. (without handles on the inside', so that they cannot be unlatched from the inside, but so that the Third Warder can unlatch any one of the Locks by key or handle from the outside, and so that the Third Warder may overlock any door, rendering it impossible for the Third Warder to open it, the Second Warder having a separate key for each cell ; and so that the First Warder, or any superior official, may carry one key which shall unlock and unlatch every cell in the Asylum.

The Lock also admits of any variations and changes, applicable beyond any Locks yet invented, to every contingency that may be required in connection with large establishments for different purposes, and specifications and prices will always be given upon any requirements being made known to the TUBULAR LOCK SYNDICATE, Ltd., Leadenhall Buildings, London, E.C.

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ESTABLISHED 1799.

TELEPHONE—
No. 377

WALTER SHAW & CO.,

16 & 17, PARK STREET, BIRMINGHAM.

BUILDERS' IRONMONGERS, IRONFOUNDERS,

Merchants & Manufacturers.

Fig. 1.
With Barnley's Patent
Chain Guides



Fig. 2.
Improved Weston's
with Patent Guides.



ALL DESCRIPTIONS OF
SCAFFOLD CHAINS, BLOCK, CABLE & CRANE CHAINS.
WROUGHT NAILS OF ALL SORTS.
Cut, Patent Pressed, Cast, Malleable Nails; Wire, Zinc & Copper Nails.
BOLTS AND NUTS, COACH SCREWS, RIVETS, &c.

IMPROVED WESTON'S DIFFERENTIAL PULLEY BLOCKS

With Barnley's Patent Self-Adjusting Roller Chain Guides.

REDUCED PRICES.

FIG. 1, WITH PATENT GUIDES.

TESTED TO... TONS	1	2	3	4	5	6	7	8	9	10
Blocks per set	5	12 1/2	14 1/2	16 1/2	18 1/2	20 1/2	22 1/2	24 1/2	26 1/2	28 1/2
Bright Chain per ft.	5d.	5d.	6d.	7d.	8d.	9d.	10d.	11d.	12d.	13d.

FOUR feet of CHAIN required to every foot to be lifted.

FIG. 2, WITHOUT PATENT GUIDES

TESTED TO... TONS	1	2	3	4	5	6	7	8	9	10
Blocks per set	5	12 1/2	14 1/2	16 1/2	18 1/2	20 1/2	22 1/2	24 1/2	26 1/2	28 1/2
Bright Chain per ft.	5d.	5d.	6d.	7d.	8d.	9d.	10d.	11d.	12d.	13d.

DISCOUNT AND TERMS ON APPLICATION.



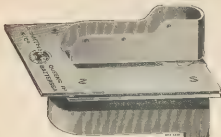
PRICES ON APPLICATION.

H—IRONMONGERY AND HARDWARE.

ARCHIBALD SMITH & STEVENS,

Telegraphic Address—
"Hydraulic, London"

QUEEN'S ROAD, BATTERSEA, S.W.



PATENT ADJUSTABLE "JANUS" DOOR SPRINGS.

THIS is the original and well-known "SMITH'S" SPRING. To prevent the use of cheap imitations, Architects are respectfully desired to specify Name and Address in full.

SMITH'S PATENT "MODEL" DOOR SPRING.

THE "MODEL" SPRING is of the same type as our 'Janus,' but smaller in size, and suitable for a lower class of building. It possesses the same strength as the 'Janus' Spring.

PRICES OF "JANUS" DOOR SPRINGS.

No.	Size.	Price with Dean Trough Shoe.	Price with Iron Strap Shoe.	Extra for Outer Box.	Lubricant and Screws.
1	Y	35/0	33/0	10/0	1/6
2	Z	55/0	50/0	15/0	4/6

No. 1 Spring is suitable for Doors up to a ft. 9 in. wide.
No. 2 Spring is suitable for larger Doors.

Outer Boxes are recommended when Springs are let into Tiles, Mosaic, Cement, or similar floors. One Spring may thus be removed for repairs without cutting up the floor.

PRICES OF "MODEL" DOOR SPRING.

Size.	Maximum Width of Door.	Price with Dean Trough Shoe.	Price with Iron Strap Shoe.	Extra for Outer Box.
X	30 inches	22/0	21/0	4/0
Y	36 "	25/0	23/6	4/0
Z	42 "	28/0	25/0	4/0

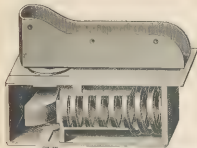
Sympathetic Springs per pair, X size with Brass Shoes 75/0
Lubricant and Screws 1/6 per Spring

PATENT "BATTERSEA" DOOR SPRING.

A HIGH-CLASS London-made Spring at the lowest price yet offered. It is the simplest made, having only Two Moving Parts. Samples on Train.

PRICES.

Size of Spring.	Maximum Width of Door.	Price with Dean Trough Shoe.	Price with Iron Strap Shoe.	Extra for Outer Box.
X	30 inches	18/0	17/0	4/0
Y	36 "	22/0	20/6	4/0
Z	42 "	24/0	22/0	4/0
Z 2	Larger or Exposed Doors	27/0	25/0	4/0



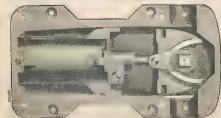
STEVENS' & MAJOR'S

PATENT HYDRAULIC SPRING AND CHECK.

THIS CHECK SPRING was the First Spring placed on the market, which combined the three functions of Spring, Hinge, and Check; and in spite of the numerous imitations which immediately followed, it maintains its foremost position. It is equally applicable to Double or Single Acting Doors. Internal or External.

SIZES AND PRICES.

For Internal Doors 6-10	Size.	With Brass Shoe.	With Iron Strap Shoe.	Extra for Outer Box.
24 inches wide	Xo	1 6 0	1 4 0	4 6
30 "	X	1 7 0	1 4 6	4 6
36 "	Y	1 14 0	1 11 0	6 0
42 "	Z	2 3 0	1 19 0	7 6
48 "	Z 2	2 10 0	2 6 0	7 6



PRIZE MEDALS AWARDED AT

International Exhibition, London, 1884.
International Exhibition, Antwerp, 1885.

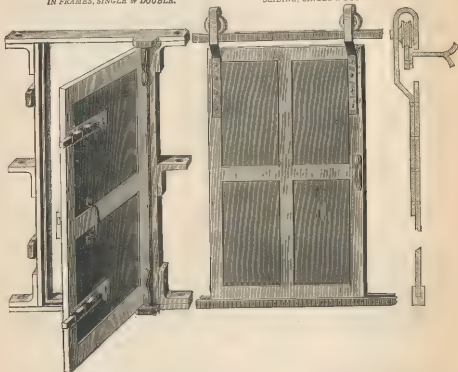
H—IRONMONGERY AND HARDWARE.

WHITFIELD'S WROUGHT IRON PARTY WALL OR INSURANCE DOORS,

MADE IN ACCORDANCE WITH THE METROPOLITAN BUILDING ACT

IN FRAMES, SINGLE or DOUBLE.

SLIDING, SINGLE or DOUBLE



SPECIFICATION.

1/2 in. Plate panels, with 1/2 in. Scales and 1/2 in. is, and hung with Wrought Iron Centres into Frames 1/2 in. by 1/2 in., or 1/2 in. by 1/2 in., according to size of Door. Secured with 12 in. Tower Bolts and Lever Dead Lock.

SPECIFICATION.

1/2 in. Plates with 1/2 in. Scales and Rails hung with strong Wrought Iron Straps and 6 in. Pulleys, on to 1/2 in. by 1/2 in. round edge, Running Bar, Groove, &c., complete.

Prices of these Doors sent on receipt of sizes of openings.

F. WHITFIELD AND CO.,

MANUFACTURERS OF WROUGHT IRON SAFES AND DOORS,

4 OXFORD STREET, BIRMINGHAM. ▶

London Office: 66, HOLBORN VIADUCT, LONDON, E.C.

H-IRONMONGERY AND HARDWARE.

WHITFIELD'S FIRE RESISTING IRON DOORS.

SIZES

(of Door Plates.)

Ft. In. Ft. In.

6 0 by 2 0

6 0 " 2 6

6 0 " 3 0

6 6 " 2 9

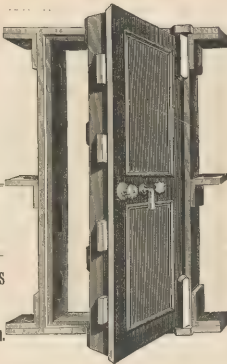
Other Sizes

at Proportionate Prices.

PARTY WALL DOORS

FOR WAREHOUSES

FROM £3 10s. EACH.



PRICES

£ s. d.

12 15 0

14 0 0

15 15 0

15 15 0

Discounts

and Terms to Builders and

Architects on Application.

FIRE AND BURGLAR

RESISTING SAFES

FROM £5 5s. EACH.

Quality

No. 37.

SPECIFICATION.

Door Plates in solid hung with strong WROUGHT IRON CENTRES into 3 in by 1 in Frame with 2 1/2 in by 1 in Rebate Bar, 3/4 in FILLED Lock-case secured to Door Plate with Pins and Straps; Brass Lever Handle, throwing Four Bolts at Front, Three Back Dogs

Bolts secured by WHITFIELD'S PATENT seven-slide Lock, or Patent Solid Lever Block Lock (two keys), protected by Hardened Steel Plates.

F. WHITFIELD AND CO.,

MANUFACTURERS OF WROUGHT IRON SAFES AND DOORS,

4 OXFORD STREET, BIRMINGHAM. 4

London Office: 66, HOLBORN VIADUCT, LONDON, E.C.

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H-IRONMONGERY AND HARDWARE.

WHITFIELD'S PATENT "SICKER" DOOR.

For Bankers and Jewellers.

PRIZE
MEDALS.

LONDON,

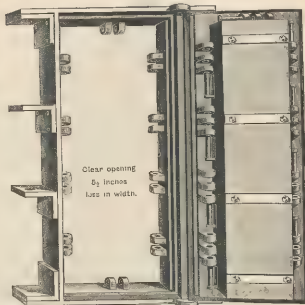
1851.

PARIS,

1878.

SYDNEY,

1879.



PRIZE
MEDALS.

MELBOURNE

1880.

ADELAIDE,

1881.

CALCUTTA,

1884.

SPECIFICATION.

Door Plate 1 1/2 in. made of two 1 in iron plates, interspersed with 1/2 in hardened drill-proof steel plate, hung with strong wrought iron centres, into 6 in x 1/2 in frame with 5/8 in by 3/4 in square. Fitted with ten steel "Sicker" bolts four each, back and front and one each up and down, shooting all round door. Lockcase covering boltwork, filled with best fire-resisting composition, and bolts secured by one twelve and one nine slide Whitfield's Patent unpeckable gaspowder proof lock (two keys).

Size of Door Plate.

Ft. In.	Ft. In.									Price
6	0	x	3	0	..	..	..	..	..	57 10 0
6	0	x	2	0	..	..	..	..	..	51 5 0
6	0	x	3	0	..	..	..	..	..	65 0 0
6	6	x	3	0	..	..	..	..	..	68 15 0

ESTIMATES GIVEN FOR ALL SIZES OF DOORS AND FRAMES IN ANY QUALITY.

Wrought Iron Ventilating Gates and Frames for Bankers' Muniment Rooms, &c., from £10 to £20, according to size.

F. WHITFIELD AND CO.,

MANUFACTURERS OF WROUGHT IRON SAFES AND DOORS,

4 OXFORD STREET, BIRMINGHAM.

London Office: 66, HOLBORN VIADUCT, LONDON, E.C.

H—IRONMONGERY AND HARDWARE.

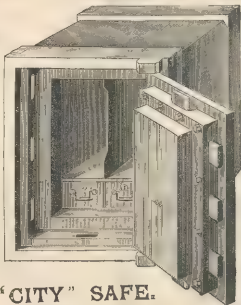
WHITFIELD'S WROUGHT-IRON FIRE AND THIEF-RESISTING SAFE.

SIX PRIZE MEDALS.

London, 1851. Paris, 1878. Sydney, 1879. Melbourne, 1880. Adelaide, 1881. Calcutta, 1884.



Bodies made of best
 $\frac{1}{2}$ in. Boiler Plate, put
 together with strong Angle
 Iron, and strengthened
 with massive Outside
 Bands, Chambered and
 filled with Patent Eva-
 porating Composition.
 Doors, $\frac{3}{4}$ in. Solid, hung
 with centres.



Strong Bolts thrown
 back and front, and
 top and bottom, by
 Brass Handle, into the
 rebate bars of safe,
 and secured with
 Whitfield's 8-lever Solid
 Block Lock (Two keys),
 protected by Hardened
 Steel Plate.



THE "CITY" SAFE.

DIMENSIONS. Over Inside. In. H. W. D. High. Wide. Deep.	INTERNAL MEASUREMENTS. Above Drawers. In. H. W. D. High. Wide. Deep. (Above drawers)	APPROX. WEIGHT. Cwts. Qrs. Lbs.	FITTINGS.	Price With Fittings.			Price Without Fittings.		
				£	s.	d.	£	s.	d.
31 x 18 x 18	26 x 14 x 14	4 0 0	1 Drawer half across and Partition	52	0	0	45	12	0
35 x 22 x 22	30 x 18 x 18	5 0 0	2 Drawers & Partition	57	0	0	51	18	0
38 x 25 x 25	33 x 21 x 21	6 0 0	3 Drawers & Partition	62	0	0	56	8	0
42 x 28 x 28	37 x 24 x 24	8 0 0	4 Drawers, Partition, and Shelf	67	5	0	58	12	0
48 x 32 x 32	43 x 28 x 28	12 0 0	5 Drawers, Partition, and Shelf	81	10	0	70	15	0
54 x 36 x 36	49 x 32 x 32	16 0 0	6 Drawers in centre, Partition above & below	95	0	0	84	5	0

F. WHITFIELD AND CO.,

MANUFACTURERS OF WROUGHT IRON SAFES AND DOORS,

4 OXFORD STREET, BIRMINGHAM. 4

London Office: 66, HOLBORN VIADUCT, LONDON, E.C.

H-IRONMONGERY AND HARDWARE.

UNGAR & CO'S NEW DESIGNS OF OUTSIDE LAMPS FOR SEASONS 1889-90.

GENERAL GAS & ELECTRIC LIGHT FITTERS. ELECTRIC & PNEUMATIC BELLS, SPEAKING TUBES, &c.

DOUBLE ARM ECLIPSE

J. UNGAR & CO
LONDON
MANUFACTURERS

LOUISE

IMPROVED ALBION

PEDESTAL DRAPERS

DRAPERS' SHOP-GAS RAILS.

GAS FITTINGS IN GREAT VARIETY

GENERAL SHOP WINDOW FITTINGS.

MINORIES

AND AT THE BEST VALUE.

33 in. diameter.

SPECIAL & GENERAL GAS-FITTINGS FOR ANY TRADE. DRESS RAILS & WINDOW FITTINGS KEPT IN STOCK.

EXTENSIVE SHOWROOMS-52, COMMERCIAL STREET, LONDON.

H-IRONMONGERY AND HARDWARE.

YOUNG & MARTEN

LEAD, ZINC, GLASS, IRON,
OIL & COLOUR MERCHANTS,
BUILDERS' IRONMONGERS,
CHIMNEY-PIECE, GAS-FITTINGS & PAPER-
HANGINGS MANUFACTURERS,
CALEDONIAN WORKS,
STRATFORD,
LONDON, E.,

*Supply, on receipt of order, from their EXTENSIVE STOCK, EVERYTHING
required in the*

Building, Plumbing & Decorating Trades,
AT
LOWEST CURRENT PRICES.

COMPLETE SETS OF CATALOGUES, WITH TRADE DISCOUNTS,
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CALEDONIAN WORKS, STRATFORD, LONDON, E.

Telephone—

LONDON, NO. 5439.
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IRONMONGERY AND HARDWARE.

YOUNG AND MARTEN, Paper Hangings and Gas-fittings Manufacturers,
Caledonian Works, STRATFORD, London, E.

Pattern Books and Prices

of

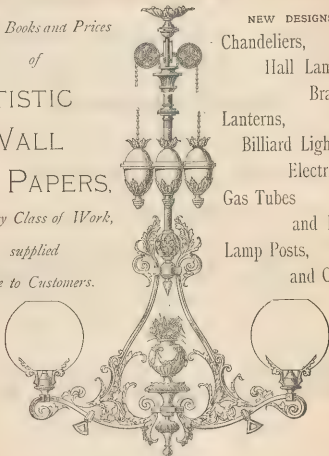
ARTISTIC
WALL
PAPERS.

*for every Class of Work,
supplied*

Free to Customers.

NEW DESIGNS IN

Chandeliers,
Hall Lamps,
Brackets,
Lanterns,
Billiard Lights,
Electric Bells,
Gas Tubes
and Fittings,
Lamp Posts,
and Columns.



Chandelier No 1120.

Polished Brass and Copper combined: Porcelain Vase can be used for Natural Flowers.

Complete Illustrated Catalogue and Trade Discounts quoted upon receipt of Trade Card.

YOUNG & MARTEN, MERCHANTS AND MANUFACTURERS,
Caledonian Works, STRATFORD, London, E.

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YOUNG & MARTEN, Merchants & Manufacturers, Caledonian Works, STRATFORD, London, E.



LEADED CATHEDRAL LIGHTS

FOR CHURCHES,
PUBLIC BUILDINGS,
CONSERVATORIES.
SUMMER HOUSES.
FANLIGHTS.
DOOR-PANELS,
HALLS, PORCHES.
WINDOW BLINDS, &c.



EXPERIENCED WORKMEN SENT OUT FOR REPAIRS.

New Sheet of Designs, 40 in. by 27 in., lithographed in colours, containing 139 subjects, now ready, Price 1s. The amount will be allowed off first order exceeding 20/-



PLUMBERS' BRASS WORK. SANITARY GOODS. LAVATORY BASINS, STANDS AND FITTINGS.

CISTERNS, TANKS,
AND CYLINDERS.
BATHS, &c.



Complete Set of Catalogues, with
Trade Discounts, free on application
with Trade Card.

YOUNG & MARTEN,

MERCHANTS AND MANUFACTURERS, Caledonian Works, STRATFORD, London, E.
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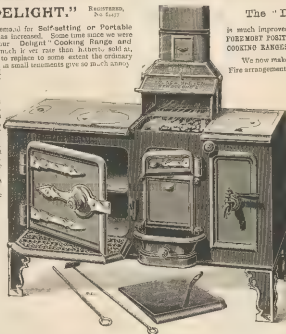
H—IRONMONGERY AND HARDWARE.

YOUNG & MARTEN, Kitchen Range and Stove Manufacturers, Caledonian Works, STRATFORD, London, E.

OUR NEW IMPROVED PORTABLE AND SELF-SETTING COOKING RANGE. THE "DELIGHT,"

Steadily the demand for Self-setting or Portable Cooking Ranges has increased. Some time since we were able to introduce our "Delight" Cooking Range and Smoke Cure at a much lower rate than hitherto sold at, our chief aim being to replace to some extent the ordinary *Kitchen Range*, which as small tenements give so much anxiety to tenant and landlord by their *smoky, inefficient* nature. The "Delight" being a thorough Smoke preventer, a Fuel Saver, an Efficient Cooker, of elegant appearance, and very far more costly than the ordinary Range, at once became a very great favourite. We venture to hope for in its new form a still greater popularity for above qualities.

COMPACT AND
PERFECT.
STRONG AND
ORNAMENTAL.



The "DELIGHT" is much improved, and still holds the FOREMOST POSITION of all PORTABLE COOKING RANGES.

We now make it with Open and Close Fire arrangement, without extra charge. This lessens the heat in kitchen, and still further reduces consumption of Fuel.

THE
"DELIGHT"
is a truly what its name implies — a "Delight" in every household where used, and the best commendation to a trial is that over

100,000
are now in use,
and
EVERY ONE
A PERFECT
SUCCESS.

	Size made	24	26	28	30	32	36	38 in. wide.
	Oven inside	10	12	12	14	14	14	16
No. 1204 —OVEN AND SHAM	.. ..	37/8	40/-	45/-	50/-	52/6	56/-	65/- each.
	Size made	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	44 in. wide.
	Oven inside	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..
No. 1205.—OVEN & BOILER, WITH TAP, as drawn	.. ..	.. ..	.. ..	52/0	55/-	57/6	65/-	85/- each.
Smoke Pipe and Smoke Plate for all sizes 4/- per set.								

The following is one of many Testimonials we have received — Mr GOOD writes, "Your 'DELIGHT RANGE' in my opinion is the BEST, the CHEAPEST, and most USEFUL RANGE in the MARKET. I have fixed in and round London some more, and have never yet had a complaint against them, but have on many occasions heard from the users the greatest praise in their favour, they are *safe and sure* for the *steady* service, they are *simple* in working, and allow of the *ventilation* and the *hearth* to be kept bright and clean with the *simplest* amount of labour. I have fixed these Ranges in Educational Establishments where *so to speak* down to date. Your *gas* which has been the only means of cooking, and I am told by the users that they still have room to spare, I advise my customers to have the Open and Close Fire as they are great economisers of fuel, and provide the means for better ventilation."

Free Delivery and Trade Terms quoted upon Receipt of Trade Card.

YOUNG & MARTEN, MERCHANTS AND MANUFACTURERS, Caledonian Works, STRATFORD, London, E.
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H—IRONMONGERY AND HARDWARE.

YOUNG & MARTEN,

KITCHEN RANGE AND STOVE MANUFACTURERS,

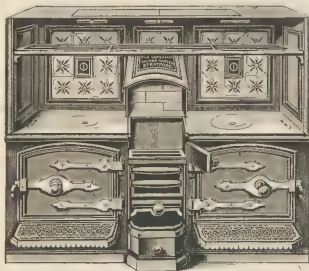
CALEDONIAN WORKS, STRATFORD, LONDON, E.

THE "VICTORIAN" OPEN AND CLOSE-FIRE KITCHENER,

WITH TILED COVINGS.

Made with Two Large Wrought Iron Ovens, ventilated, one for Roasting and the other for Baking: fitted with Bright Dish Rests under Ovens, Draw-out Fret, Bright Hinges, Nosings, Plate Rack, Ashes Pan, Fall Bar to Fire, Open or Close Hood with Ventilator above, complete with Tiled Covings.

THE
OPEN
FIRE
ARRANGEMENT
LESSENS
THE
HEAT
IN
KITCHEN.



THE
VENTILATOR
ABOVE
HOOD
CARRIES
OFF
THE FUMES
OF
COOKING.

28 in to Hot Plate, 18 in deep, wth 12 in Covings to all sizes									
Sides	48	48	54	54	60	60	66	66	72
Backer Inside	11 1/2	11 1/2	12 1/2	12 1/2	13 1/2	13 1/2	14 1/2	14 1/2	15 1/2
Roaster Inside	11 1/2	11 1/2	12 1/2	12 1/2	13 1/2	13 1/2	14 1/2	14 1/2	15 1/2
Fire	8	8	10	10	12	12	14	14	16
No. 767, Double Ovens, Open and Close Fire, wth Tiled Covings as drawn	154 6	165	175 1/2	190 1/2	200 1/2	210 1/2	220 1/2	230 1/2	240 1/2
No. 836, Arch'd Flue Bath Boiler to fit	23 6	25 1/2	28 1/2	30 1/2	32 1/2	34 1/2	36 1/2	38 1/2	40 1/2
No. 767, D. O. O. & C F, Kitchen and No. 836 Bath Boiler complete	175 1/2	190 1/2	200 1/2	215 1/2	230 1/2	240 1/2	250 1/2	260 1/2	270 1/2

Also made with Close Fire: Iron Covings: One Oven: or One Oven and Side Boiler. Sizes and full details as per "Victorian List." The following is one of many Testimonials we have received:—

Captain SHERIDAN, R.N. writes: "I have much pleasure in stating that the Victorian Kitchener supplied by you some time back for the use of the May, February 1891, is an entire satisfaction. It is most simple and effective in its action and is far beyond any other Kitchener of the same size and cost that I have ever been acquainted with. I am, therefore, a warm advocate of the Kitchener of the Victorian List, and I am glad to see it so extensively for a very excellent article."

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YOUNG & MARTEN, MERCHANTS AND MANUFACTURERS,

Caledonian Works, STRATFORD, London, E.

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H-IRONMONGERY AND HARDWARE.

Telegraphic Address. "Yemart" London. J

[Telephone, No. 5,439.

YOUNG & MARTEN,
MERCHANTS AND MANUFACTURERS,
Caledonian Works, STRATFORD, London, E.

Please send us TRADE CARD with application to have your name and address placed upon our Register of PURCHASERS. We will, if desired, also undertake to send you, post-free, the next issue of our ILLUSTRATED TARIFF OF PRICES. The value has been accurately described.

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RAINER
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BOILERS & HOT WATER
GLASS
BATHS & SANITARY COOD
OILS
KITCHENERS & RANGES
BRUSHED
VARNISHES
GRATES, STOVES & CHIMNEY PIECES
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SLATES
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MORTAR
STABLE FITTINGS.
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DRY
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WORKS
STRAFORD, LONDON.

SUPPLY
EVERYTHING REQUIRED
IN THE

BUILDING PLUMBING & DECORATING TRADES

EXTENSIVE STOCK. ORDERS PROMPTLY DISPATCHED

DEPARTMENTS.

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BRANCHES

WALTHAMSTOW, N.E.; LEYTONSTONE, E.; and CALEDONIAN WHARF, STRATFORD MARKET, E.

Head Office: Caledonian Works, STRATFORD, London, E., to which all communications should be addressed.

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THE

TEALE FIRE PLACE COMPANY,

KELSALL STREET WORKS, LEEDS.

SOLE MANUFACTURERS OF THE

"Lionel Teale Front Hob Fire Place."

ALSO MAKERS OF OTHER FIRE PLACES,

Absolutely and Strictly on the Principles Advocated by

T. PRIDGIN TEALE, Esq., M.A., F.R.C.S., F.R.S.

CHARLES TIGHE & SONS,

42, LOMBARD STREET, LONDON, E.C.

TIGHE'S PATENT DOOR FURNITURE.



Architects' own Designs made to Order.

Price Medals, International Exhibition.

SPECIAL ADVANTAGES.

These Handles cannot come off or work loose, are complete in two parts, require neither tools or screws for fixing, and are absolutely and permanently secure when fixed.

Especially, this is a great improvement on ordinary door handles, which are liable to be tampered with by the use of tools, and are not so secure as these. The handles are also made in various designs, and are suitable for all kinds of doors, and are also suitable for use in public buildings, and are also suitable for use in private residences.

WOOD.		IRON.		CHINA.	
No.	Price	No.	Price	No.	Price
10	1/6	40	2/6	1	1/6
11	1/6	41	2/6	2	1/6
12	1/6	42	2/6	3	1/6
13	1/6	43	2/6	4	1/6
14	1/6	44	2/6	5	1/6
15	1/6	45	2/6	6	1/6
16	1/6	46	2/6	7	1/6
17	1/6	47	2/6	8	1/6
18	1/6	48	2/6	9	1/6
19	1/6	49	2/6	10	1/6
20	1/6	50	2/6	11	1/6
21	1/6	51	2/6	12	1/6
22	1/6	52	2/6	13	1/6
23	1/6	53	2/6	14	1/6
24	1/6	54	2/6	15	1/6
25	1/6	55	2/6	16	1/6
26	1/6	56	2/6	17	1/6
27	1/6	57	2/6	18	1/6
28	1/6	58	2/6	19	1/6
29	1/6	59	2/6	20	1/6
30	1/6	60	2/6	21	1/6
31	1/6	61	2/6	22	1/6
32	1/6	62	2/6	23	1/6
33	1/6	63	2/6	24	1/6
34	1/6	64	2/6	25	1/6
35	1/6	65	2/6	26	1/6
36	1/6	66	2/6	27	1/6
37	1/6	67	2/6	28	1/6
38	1/6	68	2/6	29	1/6
39	1/6	69	2/6	30	1/6
40	1/6	70	2/6	31	1/6
41	1/6	71	2/6	32	1/6
42	1/6	72	2/6	33	1/6
43	1/6	73	2/6	34	1/6
44	1/6	74	2/6	35	1/6
45	1/6	75	2/6	36	1/6
46	1/6	76	2/6	37	1/6
47	1/6	77	2/6	38	1/6
48	1/6	78	2/6	39	1/6
49	1/6	79	2/6	40	1/6
50	1/6	80	2/6	41	1/6
51	1/6	81	2/6	42	1/6
52	1/6	82	2/6	43	1/6
53	1/6	83	2/6	44	1/6
54	1/6	84	2/6	45	1/6
55	1/6	85	2/6	46	1/6
56	1/6	86	2/6	47	1/6
57	1/6	87	2/6	48	1/6
58	1/6	88	2/6	49	1/6
59	1/6	89	2/6	50	1/6
60	1/6	90	2/6	51	1/6
61	1/6	91	2/6	52	1/6
62	1/6	92	2/6	53	1/6
63	1/6	93	2/6	54	1/6
64	1/6	94	2/6	55	1/6
65	1/6	95	2/6	56	1/6
66	1/6	96	2/6	57	1/6
67	1/6	97	2/6	58	1/6
68	1/6	98	2/6	59	1/6
69	1/6	99	2/6	60	1/6
70	1/6	100	2/6	61	1/6
71	1/6	101	2/6	62	1/6
72	1/6	102	2/6	63	1/6
73	1/6	103	2/6	64	1/6
74	1/6	104	2/6	65	1/6
75	1/6	105	2/6	66	1/6
76	1/6	106	2/6	67	1/6
77	1/6	107	2/6	68	1/6
78	1/6	108	2/6	69	1/6
79	1/6	109	2/6	70	1/6
80	1/6	110	2/6	71	1/6
81	1/6	111	2/6	72	1/6
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231	1/6	261	2/6	222	1/6
232	1/6	262	2/6	223	1/6
233	1/6	26			

H—IRONMONGERY AND HARDWARE.

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THE COMPLETE CATALOGUE.

Section I.

MASONRY, MARBLE, SCULPTURE, &c.

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I—MASONRY, MARBLE, SCULPTURE, ETC.

NOTES REFERRING TO GOODS IN THIS SECTION.

I—MASONRY, MARBLE, SCULPTURE, ETC.

BURKE & CO., SCULPTORS AND MASONS.

Telegraph Address—
BURKES, LONDON

LONDON - 17, NEWMAN STREET, W.

Telephone, No. 3762

PARIS - - 4, RUE SAINT LUC.

MARBLE MOSAIC PAVEMENTS,
Enamel & Marble Mosaic Mural Decorations,
Marble Staircases and Balustrades,
MARBLE & ALABASTER DADOS & WALL LININGS,
MARBLE PAVEMENTS.
Marble Chimney Pieces, Fenders & Hearths.

Messrs. BURKE & CO. were the Contractors for Marble and Marble Mosaic Work at
the following Public Buildings, viz. :—

THE GOLDSMITHS' HALL.
THE JUNIOR CARLTON CLUB.
THE CONSTITUTIONAL CLUB.
THE BADMINTON CLUB
THE HOLBORN RESTAURANT.
THE HOTEL METROPOLE
THE GRAND HOTEL

THE FIRST AVENUE HOTEL
CHESTER CATHEDRAL
CORK CATHEDRAL.
THE ROYAL MILITARY CHAPEL, Wellington Barracks
ST. MARLYBONE CHURCH
THE NEW CAMBRIDGE CIRCUS THEATRE

And for the Marble Mosaic Floors at—

NATURAL HISTORY MUSEUM, Kensington
NEW TOWN HALL, Manchester.
THE BRITISH MUSEUM
MUSEUM OF SCIENCE AND ART, Edinburgh
BANK OF ENGLAND, FLEET STREET BRANCH
NATIONAL GALLERY
ROYAL INSTITUTE OF BRITISH ARCHITECTS

THE CARLTON CLUB,
ST. STEPHEN'S CHURCH, WALSLEY, E.C.
ST. MARY'S CHURCH, PORTSEA
ALL SAINTS, CHURCH, WOLF BROMWICH
THE NEW TOWN HALL, PORTSMOUTH.
THE CHURCH, MAYNOOTH COLLEGE

CONTRACTORS' COMPENDIUM.

K K

263

1—MASONRY, MARBLE, SCULPTURE, ETC.

ITALIAN MARBLE MOSAIC FLOORS.

Manufactured by

Telegraphic Address:
"MOSAICIST,
LONDON."

JOS. F. EBNER, & GOLD MEDALS
AND
HIGHEST AWARDS.

150, OLD STREET, ST. LUKE'S, LONDON, E.C.

ENAMEL MOSAIC FOR MURAL DECORATIONS.

IMPROVED MARBLE TERRAZZO PAVEMENTS.

DESIGNS
AND
ESTIMATES
ON
APPLICATION.



DESIGNS
AND
ESTIMATES
ON
APPLICATION.

REFERENCES TO WORK EXECUTED.

NATIONAL LIBERAL CLUB.
BROMPTON ORATORY ALTAR.
MIDDLESEX HOSPITAL.
LLOYD'S BANK, ST. JAMES STREET.
LONDON JOINT STOCK BANK, GREAT TOWER ST.
LONDON & WESTMINSTER BANK, BROMPTON.
AGRA BANK, CLEMENTS LANE.
THE BARBERS' HALL.
THE BUTCHERS' HALL.
THE BAKERS HALL.
HUMPHREYS HALL, KNIGHTSBRIDGE.
CITY OF LONDON SCHOOLS.
KENSINGTON TOWN HALL.
ARMY AND NAVY HOTEL, WESTMINSTER.
JERUSALEM BODEGA, CORNHILL.
ROYAL TURKISH BATHS, YORK TERRACE.
CONVENT, NORTHAMPTON. MONASTERY, WADHURST

THE REFORM CLUB
MEISTERSINGERS' CLUB, ST. JAMES' STREET
TOWN HOUSE, HIS GRACE THE DUKE OF
MARLBOROUGH.
PARLIAMENT MANSIONS, WESTMINSTER
GLOUCESTER MANSIONS, S.W.
OXFORD MANSIONS, W.
MARLBOROUGH MANSIONS, W.
PORTLAND MANSIONS, W.
MORTIMER MANSIONS, W.
MAYFAIR CHAMBERS, W.
ST. JAMES' CHAMBERS, W.
VICCADILLY RESTAURANT
CENTRAL STATION HOTEL, GLASGOW
RED LION HOTEL, CARLISLE.

H.M. EMPRESS EUGENIE, HIS GRACE THE DUKE OF RUTLAND, THE EARL OF DY-AIR, EARL OF DENBEIGH,
EARL BEAUCHAMPT, RIGHT HON. J. LOWTHER, SIR JAMES DUKE, BART., J. CORBETT, M.P., COL. J. BOZIER, &c., &c.

FOR EBNER'S FAIRQUETRY AND WOOD FLOORS, SEE PAGE 119.

1—MASONRY, MARBLE, SCULPTURE, ETC.

ANCASTER STONE COMPANY,

ANCASTER, GRANTHAM, LINCOLNSHIRE.

The Sole Proprietors (C. & H. KIRK) continue to supply Stone of the same fine quality as heretofore from their Old Quarries.

OFFICES: JERMYN STREET, SLEAFORD.

PETHICK BROS.,

Granite Merchants,

NORLEY YARD, PLYMOUTH,

Are now in a position to supply from the Dartmoor Granite Quarries, Building Stones, Clean Broken Stone for Concrete, Gravel, Blue Elvin Macadam, Setts' Kerb, or any kind of Granite Work, delivered at any Railway Station or Port at Reasonable Prices.

Telegraphic Address—
"STONECLEVE, PORTLAND."

JOHN PEARCE,

Portland Stone Merchant and Quarry Owner,
STONECLEVE, PORTLAND.

Can supply Stone of best quality for Building Purposes, and of the largest obtainable dimensions.

SPECIAL NOTICE.—Extra large sizes up to 16 ft. in length and 5, 6, 7, 8 and 9 ft. square, for Landings and Steps; also Portland Roach Stone for Engineering purposes at cheap rates the latter being specially adapted for Harbour Walls, Foundations, Engine and Gilder Beds, &c., &c.

EXTRACT FROM THE PRESS.—The WEYMOUTH AND PORTLAND TELEGRAM, Nov. 21st, 1884.—In speaking of my Quarries on the East Cliff it says: "It is a pleasure to learn that some exceedingly fine blocks of 'durable' Stone are being quarried here of very great length and width, also that Stone from this side of the island was selected for the building of St. Paul's Cathedral."

J. HODSON & SON,

QUARRY OWNERS AND
GENERAL MASONRY CONTRACTORS.

CASTLE MEADOW ROAD, NOTTINGHAM,
(Connected by siding with Midland Railway).

ALTON STONE, Red and White.

NEW STANTON, PILLOUGH AND BIRCHOVER STONES.

WORKED STONE

of every description, from the Quarries of Yorkshire, and Derbyshire; also Red Cornhill, Ancaster, Mansfield, Hepton Wood, and other Stones from the Northern and Midland Counties.

Turning, Moulding and Plain Work by Machinery, with the Latest Improvements.

GRINDSTONES AND SCYTHESTONES FOR HOME AND EXPORT.

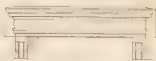
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From the collections of Sydney Living Museums / Historic Houses Trust of NSW

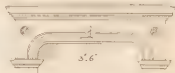
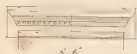
I.—MASONRY, MARBLE CARRYING, ETC.

PATENT IMPERISHABLE CONCRETE STONE

MESSRS FAMBRIANT AND DANIELS - LINCOLN



WINDOW AND DOOR HEADS



WINDOW OR DOOR HEAD

PILASTER CAN BE IN
PLAIN BRICK OR
ORNAMENTAL PLASTER
TO LENGTH REQUIRED



3' 6"

WINDOW OR DOOR HEAD
WITHOUT PILASTER

BALCONY



MOLDED BASES TO
DOORWAY OR MOLDED
BASES & PILLS TO WINDOWS

BONES FOR
SILL PILLS

WINDOW OR DOORWAY
COMPLETE WITH
SINE PILASTER

END OF
BALCONY



SCAFFOLD & BASE-STONE COMPLETE
FOR 2 BRICK OR CONCRETE PILASTER

FULL PARTICULARS AND PRICES ON APPLICATION.

KK 1

PATENT IMPERISHABLE CONCRETE STONE

MESSES FAMBIRN AND DANIELS - LINCOLN



PROJECTING ORNAMENTAL SILLS



WINDOW
APRONS

SCALE 1" = 1' OF FEET

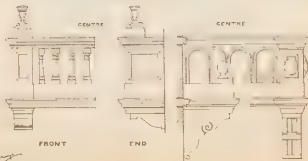
ANGLES

BALUSTERS



MAIN CORNICE

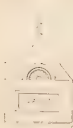
BALCONIES



1.—MASONRY, MARBLE CARVING, ETC.

PATENT IMPERISHABLE CONCRETE STONE.

MESSRS FAMBIRNI & DANIELS LINCOLN



No 1-



2-



3-

ALL THESE PIERS CAN BE MADE IN INGRAIN COLOURS
TO MATCH WITH BRICK OR STONE WORK & CAN BE
HAD WITH BORE FOR GAS PIPE IF DESIRED



4-



5-



6-

Scale of Feet



No. 7-



8-



9-

FULL PARTICULARS AND PRICES ON APPLICATION.

1. — MASONRY. MARBLE CARVING, ETC.

PATENT IMPERISHABLE CONCRETE STONE

MESSRS FABBINI AND DANIELS — LINCOLN



6 DIAPERS



THIS PANEL CAN BE MADE IN ANY COLOUR & IN ONE
PIECE INCLUDING MOLD OR NOT AS DESIRED
MEDALLION IN CENTRE CAN BE EITHER MODELLED
AS PORTRAIT OR DATE SUBSTITUTED

SCALE OF FEET

I—MASONRY, MARBLE, SCULPTURE, ETC.

GODDY, CRIPPS & SONS, LTD.,

Marble Quarry Owners & Importers,

Depots } LONDON: 14, WHARF GRAHAM ST., CITY RD., N. Registered Telegraphic Addresses
& } "GODDY, LONDON."
Saw Mills } LIVERPOOL: 15, 17 & 19, PARLIAMENT ST. "GODDY, CRIPPS,
BRISTOL: REDCLIFF WHARF. LIVERPOOL."
"CRIPPS, BRISTOL."

ITALIAN HOUSE—W. WALTON & NEPHEW, CARRARA.

The largest Stock in the United Kingdom of Statuary Italian and all kinds of Colours Marbles, Onyx, etc. Quotations given to the Trade only for Slabs, Scantlings and Blocks, also for Monuments, Figures, Vases, Baths, Fontaines, Columns, Steps, Staircases, &c.
CAEN STONE.—Sole Receivers for the West of England, orders to be addressed to Bristol House

MARBLE STEPS.

Solid Italian Marble Steps at per lineal ft., the tread 12 in. wide with 6 in. rise, packed and delivered on rail in London, Liverpool, or Bristol, when Steps are returned only one end, the portion that goes in the wall will be charged for at same rate.

	Worked, Counted and Returned one end.	Worked, Counted and Returned two ends.	Worked, Counted and Returned one end.	Worked, Counted and Returned two ends.	Worked, Counted and Returned one end.	Worked, Counted and Returned two ends.
						
No. 2.						
	3 d.	1 d.	1 d.	1 d.	1 d.	1 d.
2 jointed as No. 3	11 5	12 0	12 4	12 9	13 3	13 8
3 jointed as No. 3	12 0	12 4	12 9	13 4	14 0	14 5
5 jointed as No. 3	12 9	13 6	14 0	14 5	15 1	15 6
7 jointed as No. 3	13 5	14 3	15 0	15 8	16 5	17 3
9 jointed as No. 3	14 3	15 0	15 6	16 4	17 2	18 0
11 jointed as No. 3	15 0	15 6	16 4	17 2	18 0	18 8
13 jointed as No. 3	15 6	16 4	17 2	18 0	18 8	19 6
15 jointed as No. 3	16 4	17 2	18 0	18 8	19 6	20 4
17 jointed as No. 3	17 0	17 8	18 6	19 4	20 2	21 0
	12 0	12 4	12 9	13 4	14 0	14 5
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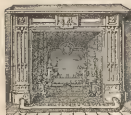
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THE COMPLETE CATALOGUE.

Section J. METAL WORK.

FIRMS REPRESENTED IN THIS SECTION.

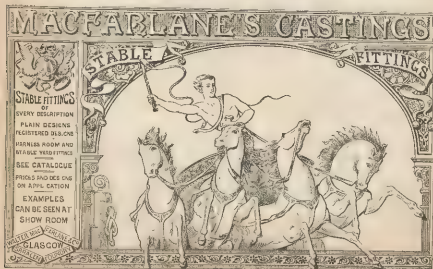
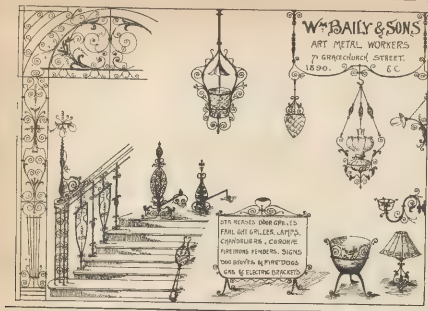
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J—METAL WORK.

NOTES REFERRING TO GOODS IN THIS SECTION

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CONTRACTORS' COMPANIES. M M

275B

J—METAL WORK.

BAYLISS, JONES, & BAYLISS'S

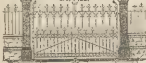
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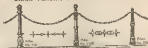


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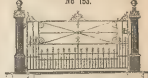
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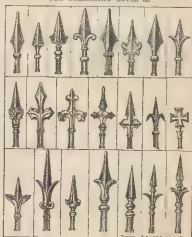
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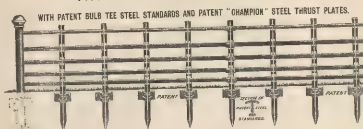
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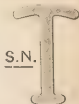
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FULL SIZE SECTION OF
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The Standards are made in one solid piece of Best STEEL, so that no welding is required, and the danger of the foot breaking off at the ground line is avoided. The vertical system of wedging considerably strengthens the fence, and prevents the Standards from being blown out of the perpendicular. The Patent "CHAMPION" STEEL Thrust Plate gives additional strength and rigidity at ground line. It shows down the back of the Standards, and is then driven into the ground, consequently the fence is much firmer than it would have been if the ground had been disturbed. As may be seen from the sketch, the fence can be fixed on the purchaser's boundary, thus saving 6 or 9 inches of ground.

COPY OF TESTIMONIAL. (Others on application.)

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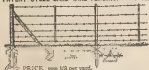
The strongest, cheapest, and most rigid Hurdle ever offered is the Victoria. Drawing A shows bar threaded through the rivets, ready for clamping; and Drawing B the Hurdle bar after it has been clamped to the rivets. The mode of making a tight corner for the line, as well as other well known details.

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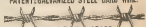
No. 100. A 12" STRAINERS FOR WOOD POSTS.



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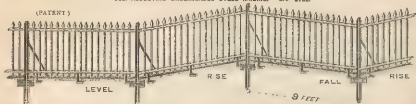
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The above Railing will adjust itself to a plane or to the ground equal to one in six.

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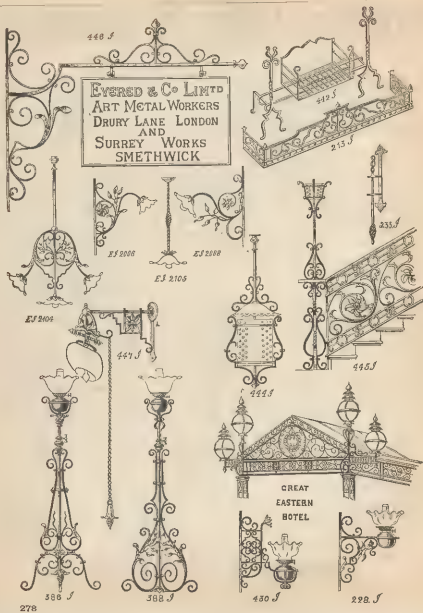
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"St. David's Church, Bangor,
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"We Avenue Worrall's desire me to say that
he is quite satisfied with the Wrought Iron
Gates."



1857

1858

WORRALL, GATESMITHS,

AND

Art Metal Workers.



1859

1860

1861

"Pursey, 18th June, 1860
"With reference to the Iron Railings
and Gates you have sent at East Pursey station, I
would say the same time expires as was sent.
"H. B. TAYLOR for LIVERPOOL & LONDON."



1862

1863

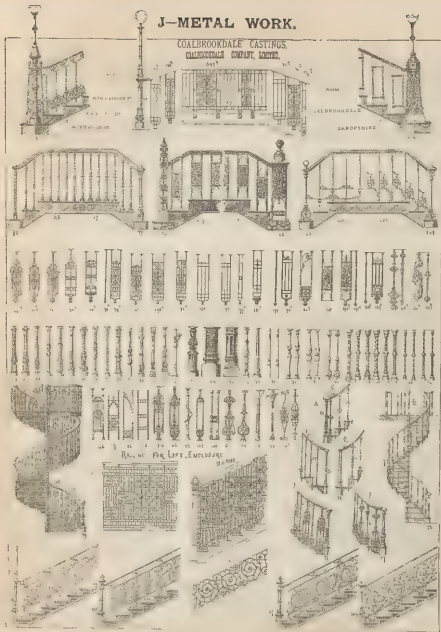
1864

TUE BROOK IRONWORKS, BYROM ST., LIVERPOOL.

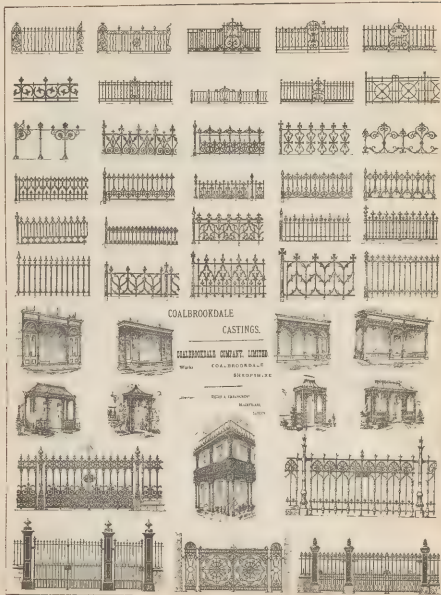
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COALBROOKDALE CASTINGS.
COALBROOKDALE CASTING, LONDON.



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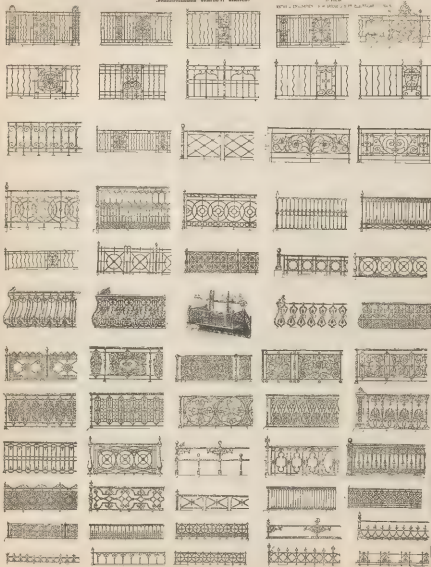
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NOTE.—STANDARD 4' 6" HIGH, 2' 6" WIDE, 2' 6" DEEP.



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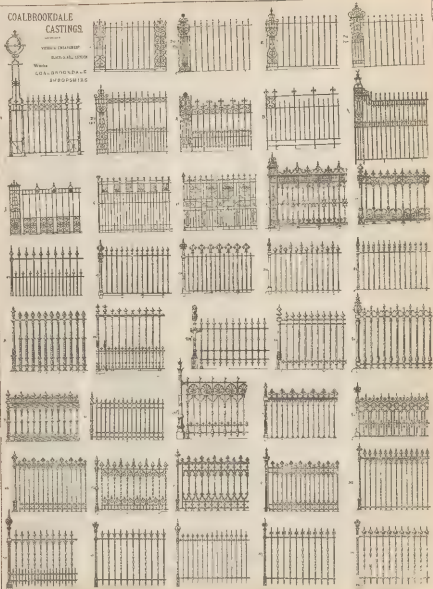
VERMOREL STREET

BLACKHALL STREET

WATER

COALBROOKDALE

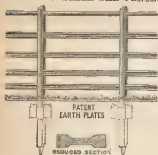
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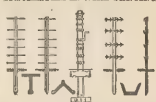
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ADOPTED IN THE STABLES OF H.E.H. THE PRINCE OF WALES

*New Patented Improvements. Perfected Designs. Registered Patterns. Recommended for
their Safety, Sanitary Advantages, and Economy.*

DATA FOR COST OF HIGH CLASS FITTINGS

Iron Stall or Loose Box Division, with Post and Sill	120/- per set
Iron Stall or Loose Box, Manger Fittings	47/6
Sanitary Guttering	22/6 per stall
"Perfection" Ventilators	35/-
Patent Safety Tying	21/- per set
Steel Corn Bins	12/6 per sack
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Cow-Stall Fittings. Adamantine Paving Bricks. Albert Chimney Caps.	

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Telephone Address—
"Hayward Brothers London," PATENT PAVEMENT LIGHT WORKS,
UNION STREET, BOROUGH, LONDON, S.E.

Hayward's Improved Circular Iron Staircases. TREAD, RISER, & SPANDRIL IN ONE.

Which gives much greater strength and stiffness than when the Treads are built up of three pieces.

ORDERS AND INQUIRIES should state the outside diameter, A B, and the height from floor to floor C D, and give a rough sketch of position of Staircase showing convenient point for first step on ground floor and top landing, and whether Balusters and Hand-rail are required at top round Well-hole.

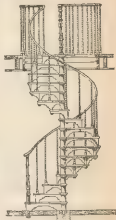


Right Hand Staircase, part circular and part straight.

STOCK SIZES.

CIRCULAR	STRAIGHT
3½ ft. diameter.	2 ft. 0 in.
4 " "	3 " 4 "
4½ " "	3 " 8 "
4¾ " "	3 " 10 "
5 " "	3 " 4 "
5½ " "	Other sizes to order.
6 " "	

The Circular Staircases are made right or left hand.



Circular Staircase, left-hand.

APPROXIMATE PRICE OF HAYWARD'S CIRCULAR STAIRCASES FROM STOCK.

Including top landing and three ornamental bars on landing, one bar on each step, with half-round hand rail, fitted and marked ready for fixing—

Diameter 3 ft. 6 in. per foot rise	..	..	..	16/-	Diameter 5 ft. 0 in. per foot rise	..	..	..	22/-
" 4 ft. 0 in. "	..	..	..	18/-	" 5 ft. 6 in. "	..	..	..	34/-
" 4 ft. 3 in. "	..	..	..	19/-	" 6 ft. 0 in. "	..	..	..	36/-
" 4 ft. 6 in. "	..	..	..	20/-					

Head-rail round Well-hole at top extra if required, and according to size.

Ornamental Panel Balusters, or two bars on a step, extra.

Straight Iron Staircases in Stock—2 ft. 4 in., 2 ft. 5 in., 3 ft., and 3 ft. 4 in. wide.

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Consists of a Protecting Ring fixed in the pavements into which the Self Locking Coal Plate is dropped and immediately secured or locked by projecting bolts on each side, actuated by an ingenious arrangement of two small Levers with a small weight in centre. The Coal plate can be pulled out with a broom handle or stick, or a rod connected with the centre weight. The drawing clearly shows how simple the arrangement is, and being so compact to itself, cannot be broken or get out of order.



COAL PLATE LOCKED.

PRICES OF HAYWARD'S PATENT SELF-LOCKING COAL PLATE AND PROTECTING RING.

		Outside Diameter of Coal Plate, and inside radius of ring.	14 in.	15 in.	16 in.
No. 1 B.—Illuminating	..	7/6	9/6	13/0	16/0
No. 2 C.—Ventilating	..	4/6	5/6	7/0	8/0
No. 3 D.—Solid Iron	..	4/6	5/6	7/0	8/0

Rods extra, if required

ARCHITECTS should specify HAYWARD'S F.P.L.S. S. J.-locking Coal Plate, Illuminating, Ventilating, or Solid Iron.

Prices of Hayward's Improved Safety Coal Plates, Circular and Square Cellar and Vault Lights, &c., on application.

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3 ft. 6 in. high... price, per yd. 28/ 23
 6 in. x 3 in. x 1/2 in. thick
 Head Gates, to match 3 ft. 6 in. wide, with arch, and
 being 10 ft. apart, wrought iron pillar
 with back stays, price complete 28 5 0



ENTRANCE GATES.



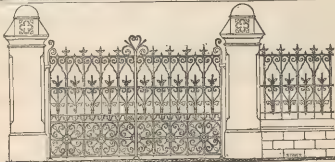
No. 122.
 9 ft. wide x 4 ft. 3 in. high in centre.
 Gates only... per pair 410 0 0
 Gates and Pillars for Stone... 410 0 0

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to 8 ft. wide x 6 ft. 6 in.
 high, with lock & chain,
 and hinges for stone
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Wrought Iron Railings, to
 match 4 ft. 6 in. high,
 with pillar and stay
 every 5 ft. apart, price
 per yd 22 5 0



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 Made any Height and Strength.



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5 ft. 6 in. x 3 ft. 3 in.
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FINIALS, & VANES.

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PORCHES.

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FOR SHOP FRONTS.

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✠ CORONÆ. ✠

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and Stay 3/6 extra.



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For Sheet Glass or Leadwork



No. F 120 10s 6

Above prices are to a scale of about 4-in. = 1-ft. but can be made in any dimensions. Discounts and special prices for large quantities on receipt of specifications. Full size sections of any of above will be sent on application. When ordering Wrought Casements, state No. of pattern, right use, position of glazing or its bars, if any; if for sheet glass or leadwork, if glazing bars above or below, if open by cords or racks. When ordering Hinged Casements, state No. of pattern, outside measurement of frame, position of glazing or its bars, if any, on which side to hang when inside room; and if for sheet glass or leadwork.

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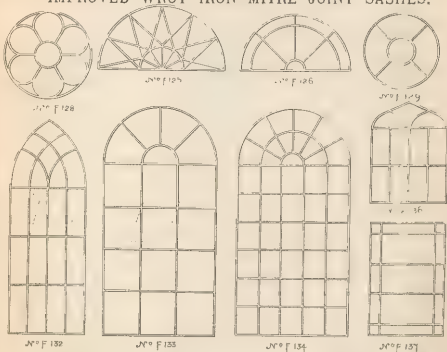
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OF MOULDED IRON
SASHES ARE MADE

Prices vary from 6d to 2s 6d per foot super according to quantities, sizes, number of panes, section of iron, and design.

Exact estimates sent on receipt of requirements.

These Sashes are in every way superior to cast iron being practically unbreakable, offer less obstruction to light, and are made in any design without cost of pattern.

Some Lights, Sights, and Conservatory Roofs made in same sections, illustrations on application

Should present prices of Iron be maintained it will be necessary to advance List prices.

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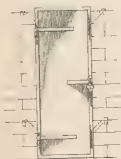
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No. F 183.

Closing on Angle Iron Frame, with Hump on Bolt.

Door 2-in thick.

6' 0" x 8' 0" £1 10 0

6' 6" x 8' 0" £2 0 0



No. F 192.

Panel 2-in thick. Panels 2-in.
Sides 1-in thick. Sides 1-in.

6' 0" x 8' 0" £1 2 0

6' 6" x 8' 0" £1 10 0

7' 0" x 8' 0" £2 12 0



No. F 194.

Solid Plates with Mouldings on Surface.

6' 0" x 8' 0" 1-in. Plate 2-in. Plate £2 10 0

6' 6" x 8' 0" £2 10 0

7' 0" x 8' 0" £3 10 0

Price of Nos. F 192, 194 Doors include Two Bolts, or Strong ordinary Dead Lock. Extra for best Two-Lever Dead Lock, 7s.; Four-Lever ditto, 10s. Complete price list on application.

STRONG ROOM DOORS, VENTILATING GATES.



No. F 196.

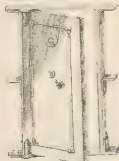
With Iron Handle throwing two bolts, secured by best powder-proof safe lock, protected by drill-plate.

Thickness of Plate.

6' 0" x 8' 0" 1-in. £1 10 0

6' 6" x 8' 0" 2-in. £2 0 0

6' 0" x 8' 0" 2-in. 4-in. £2 10 0



No. F 197.

With Brass Handle throwing four bolts, secured by best powder-proof lock, protected by drill-plate; four fixed back bolts or doors on hinge side.

With Lock opening full size of door. If with four-proof chamber in addition to lock chamber.

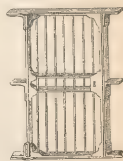
Thickness of Outer Plate.

6' 0" x 8' 0" 1-in. £1 10 0

6' 6" x 8' 0" 2-in. £2 0 0

6' 0" x 8' 0" 2-in. 4-in. £2 10 0

If plate 1-in. thick, 2-in. extra.



No. F 198.

Fitted with best Brass Bolt Lever Dead Lock.

With Lock turning and with Patent Lock.

6' 0" x 8' 0" £1 10 0

6' 6" x 8' 0" £2 0 0

6' 0" x 8' 0" £2 10 0

Discounts and special prices for large quantities on receipt of specification.

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DOOR FURNITURE.

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NAME PLATES, WEATHER VANES, BELL
DOMES and PULLS, etc., etc.

Please compare our PRICES (in all cases 25% even 50% lower), DESIGNS, and EXECUTION with those of our competitors.

Opinions of the Press.

MESSERS. W. HÖFLER & Co., of Basinghall Street, E.C., have a representative exhibit, at the Ironmongers' Exhibition, of their beautiful artistic wrought iron work. A reference to the sample books of the firm will further show the marvellous power of design possessed by the firm in the unlimited variety of charming articles delineated. The same articles are repeated again and again, as two alike, the variety in design being pushed far beyond what one would have thought possible in the staff of a single house of business. Every one that ornamental ironwork can serve has apparently been consulted. In addition to the application to artificial lighting of every kind, including table lamps, ball lamps, &c., are numberless objects to serve the most varied of useful ornamental purposes. Where all is excellent it would be hard to pick out individual articles for praise above any of the rest.—*Architect*, November 1903, 1888.

ARTISTIC WROUGHT IRON—Great as has been the improvement in art the taste of the time it may yet be asked—Why are not the surroundings of everyday modern life more beautiful? In almost every street of every town there is a shop window where artistic fabrics and furniture are displayed, and it is hardly too much to say that no manufactured article has a chance of success without some pretensions to artistic merit, and if such pretensions were generally warranted by fact there would be no great harm in them.

Unfortunately, the markets are flooded with cheap manufactured goods from a multitude of work which could only be done by hand. An excess of craving for "pretty things" is stimulated by unwholesome production, and instead of chastely adorning only by done by hand. All items with cheap and spurious articles. It is, therefore, a pleasure to notice firms which endeavour to create a market for really artistic hand-made goods, produced by genuine craftsmen, and sold at prices which, though necessarily somewhat higher than those of machine productions, are yet such as to be within reach of most. Such efforts have undoubtedly been made more successfully than by Messrs. W. Höfler & Co., of 45, Basinghall Street, London, E.C.

The revival of the long neglected art of decorative ironwork is not merely a passing craze or aesthetic fashion. Iron has always been, and probably always will be, the material which lends itself to the greatest number of appliances, whether purely artistic ornaments or articles of daily use, examples of which Messrs. W. Höfler & Co. display in the various branches of decorative ironwork at their showrooms, together with beautiful specimens of railings, gas, and electric fittings &c. A profitable hour may be spent in inspecting the great variety of specimens of Messrs. W. Höfler & Co.'s artistic ironwork. The illustrative plate which is given with the present number of *DECORATION AND ART-TRADES' REVIEW* will at once enable our readers to appreciate the high standard of artistic form which has been successfully attained by this enterprising firm.—*Decoration and Art-Trade's Review*, December, 1888.

CONTRACTORS' COMPENDIUM.

R R

293



Artistic * * Wrought= Iron Work.

Chandeliers, Brackets, Hall Lamps, ●●
Table Lamps, Fenders, Fire Irons,
Dogs, ✻ Gates, ✻ Railing, ✻ Chancel
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Casements

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Patent Safety Stable Fittings, Stalls, Loose Boxes, Mangers.

PAVING, DRAINAGE, WALL TILES, WOODWORK.

HARNESS ROOM AND COACH HOUSE FITTINGS,

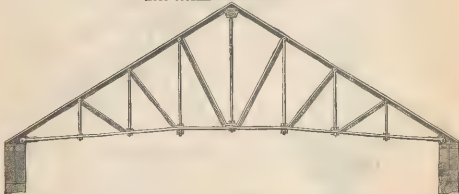
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HEAVY OR LIGHT, PLAIN OR ORNAMENTAL WROUGHT & CAST IRON WORK IN GENERAL.

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To suit any Architectural Style,

MADE IN WROUGHT IRON, DECORATED, OR POLISHED BRASS.

FOR PUBLIC BUILDINGS, CHURCHES, CHAPELS, OR MISSION ROOMS; ALSO FOR DOMESTIC USE.

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No testimony to the efficacy of such a material is complete unless it takes into account **the time during which the effect has continued**

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THE MOST DURABLE PAINT KNOWN.

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Durable.
Beautiful Colours.
Damp Proof.
A Perfect Flat.
Without Smell.

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Cheaper than Wall Paper.
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Stops Suction.
In all Shades.
Colour Unchangeable.
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FAMOUS AS A CLAIRCOLLE ON NEW PLASTER, CEMENT, AND OTHER POROUS SURFACES.
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Non-Poisonous, Powerful Body, Hard Drying, Anti-Corrosive, for Outside or Inside Work. Have no Offensive Odour.
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NEW LAW COURTS, NOTTINGHAM,

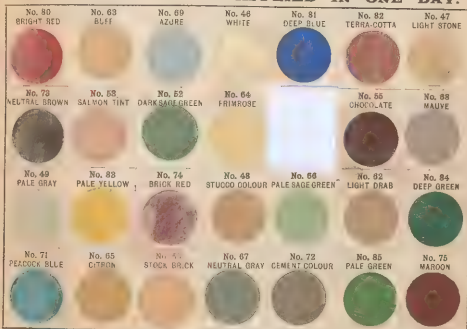
FIRE BRIGADE DEPOTS,
HORSE GUARDS,
PRESTON & COUNTY ASYLUM,
DURLEY Do. Do.

METROPOLITAN DISTRICT ASYLUMS,
NEW COURT, LINCOLN'S INN,
WEST RIDING ASYLUM, WAKEFIELD,
SOUTH YORKSHIRE ASYLUM, SHEFFIELD.

AND HUNDREDS OF OTHER LARGE PUBLIC BUILDINGS

IN ENGLAND, THE UNITED STATES, AND ON THE CONTINENT.

TWO COATS CAN BE APPLIED IN ONE DAY.



DIRECTIONS FOR USE.

This does the work. Duresco with tepid water to the consistency of thick cream. Allow it to stand till cool. Apply with ordinary distemper brush. Stripe if a fine finish is required. Tint with ochre, ochre, or other of Duresco on porous bricks or combs makes the best foundation for Enamel or Silicate Paint.

For further Particulars apply to

THE SILICATE PAINT COMPANY

(J. B. ORR & CO., Ltd., Proprietors),

46, CANNON STREET, LONDON, E.C., AND CHARLTON, LONDON, S.E.

ENAMEL PAINT

READY FOR USE.

Surface like Porcelain. Beautiful Colours.

LUSTROUS, ARTISTIC, DURABLE.

COVERING POWER DOUBLE THAT OF ORDINARY PAINT.

QUICK DRYING. WILL NOT CRACK OR BLISTER.

FINEST QUALITY GUARANTEED.

FOR INSIDE OR OUTSIDE USE. CAN BE USED OVER ANY KIND OF PAINT.

In addition to the foregoing advantages of this paint, over ordinary paints, it possesses the following merits and valuable qualities:—

It is the only paint that can be successfully applied over Tar, Black Varnish, or Felt.

It may be applied over any other description of paint, and any other kind of paint may be used over it.

Surfaces coated with it possess all the advantages for which glazed tiles are valued, at one-twentieth their cost.

It dries with a hard, impervious surface, as washable as a piece of porcelain.

It is supplied ready mixed for laying on, and is applied exactly as ordinary paints are used.

Cold water—which softens all other compositions—hardens the enamel.

It can be applied by any ordinary labourer.

One coat of Enamel is equal to one coat of common paint and one coat of varnish.

SILICATE PAINT

(FOR INSIDE AND OUTSIDE WORK).

The objections to the ordinary lead paint, which the house painter, are not only that they are poisonous, of offensive odour, and suffer decomposition, but also that in the presence of foul air, but that when used to protect outdoor work from extreme atmospheric influences, they do not effectually answer this purpose, for they either quickly crack, blister, and peel away, or, becoming disintegrated, are washed from the surface they were intended to preserve.

Yet, notwithstanding these defects, lead paints continue to be used, for the simple reason that all hitherto suggested substitutes have been deficient in body, by which standard all paints are judged and valued. As, however, the Charlton Silicate Paint has greater covering body, and is superior in durability to the best Lead Paints, the only reason for using these and other pigments ceases to have effect.

Ground in refined oil to the condition of great smoothness, and admitting of the highest artistic treatment and finish, it is a superior paint for the decoration of Dining Rooms, Drawing Rooms, Public Buildings, Ship Saloons, and Interior Work of every description. Being of great density, permanent in colour, extremely durable, and free from liability to crack or blister, the Charlton Silicate Paints are the best and most enduring preparation now used for House and Ship Painting, and outside work of all kinds, including Hothouses, Vinerias, and other structures exposed to the heat or cold in any climate. Its truly Anti-corrosive properties and absence of any galvanic action with the metals, rendering it fit for painting ironwork of all kinds, including Bridges, Girders, Columns, Water Tanks, Gasometers, and for the protection of property of all kinds exposed to the noxious emanations from Gas Factories, Chemical Works, Sugar Refineries, &c., so destructive to Lead Paints. While for Marine Residences, Piers, Harbour Works, Lighthouses, Iron Ships, Masts and Yards, Buoys, Beacons, and all Marine purposes. This unsullied being unaffected by the salt water or the sea air.

SURFACE COVERED.

The surface covered by the Silicate Paint may, as a rule, be safely calculated at 30 per cent. in excess of that covered by an equal weight of lead paint.

THE SILICATE PAINT COMPANY

(J. B. ORR & CO., Ltd., Proprietors),

46, CANNON STREET, LONDON, E.C., AND CHARLTON, LONDON, S.E.

THE COMPLETE CATALOGUE.

Section L. SANITARY MANUFACTURES.

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NOTES REFERRING TO GOODS IN THIS SECTION.

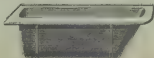
L—SANITARY MANUFACTURES.

NOTES REFERRING TO GOODS IN THIS SECTION.

J. & W. KIRKWOOD, Zinc Bath Manufacturers,
236, LEITH WALK, LEITH. N.B.

POLISHED & PLATE

ZINC BATHS.



POLISHED & PLATE

ZINC BATHS.

The Zinc of which these Baths are made is a pure metal, and possesses the valuable property of not rusting. They can be cleaned and scrubbed as every bath ought to be—without any fear of injury, as there is no enamel, paint, or varnish to scratch, crack, and blister, or be dissolved by the action of soap. A rub with whiting speedily removes every particle of grease, and keeps them clean and bright.

There are over 20,000 in Scotland, and as a proof of their durability, many of them have been in use over 40 years. Iron stands rust because of action of Soap on paint. So put on some percent. Soften Potash Soda and Potash dissolve all Paints, Varnishes, &c. Write for Prices

Telephone
No.
7048

L SANITARY

MANUFACTURES.

BROAD & CO.,

Telegraphic
Address
**BROAD
& Co
LONDON**

NUMEROUS MEDALS AND CERTIFICATE HAVE
BEEN AWARDED.

ALL PRICES HEREIN QUOTED ARE LIABLE TO
ALTERATION WITHOUT NOTICE.

BRICKMAKERS, SANITARY SPECIALISTS

LIME, CEMENT, SLATE, TILE, & GRAVEL MERCHANTS

SUPPLEMENTARY
CATALOGUE OF SANITARY APPLIANCES.

WE HOLD IN STOCK SPECIALTY MANUFACTURED BY THE LATEST AND IMPROVED MACHINERY.

A DESIDERATUM.

BROAD & CO.'S NON-PERCOLATING DRAIN PIPES (CANE COLOUR)

(THESE PIPES ARE NOW IN COURSE OF MANUFACTURE.)

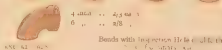
STRAIGHT PIPE.



BENDS.



TAPER BENDS



Bends with inspection flange to be double flange
to be of the same material.

SINGLE JUNCTIONS.

INSPECTION
JUNCTION.

DOUBLE JUNCTIONS.



STANFORD'S JOINTS MADE ON THE PREMISES.

Brown Stoneware Goods of all kinds kept in Stock.

ALL CARRIAGE AT RISK OF PURCHASER.

2 & 4, SOUTH WHARF PADDINGTON, LONDON, W.

L - SANITARY

MANUFACTURES.

Telephone
No.
71148

BROAD & CO.,

Telegraphic
Address
BROAD
& Co.
LONDONBroad & Co.'s Patent Channel Bends,
IN WHITE ENAMELLED STONE WARE.

These Channel Bends are specially designed and modelled to prevent the overspilling of sewage from the subsidiary drains, and to direct and accelerate the flow down the main drain.

STANDARD CHANNEL



	1	2	3
1 ft.	9 1/2	1	1 1/2
2	1 1/2	1	1 1/2
3 ft. 6 in.	2	1 1/2	1 1/2
4 ft.	2 1/2	1 1/2	1 1/2

E1

D1

E

D

F

C

G1

B1

G

B

H

A

TAPER CHANNEL
Collar either end6 x 4 or
6 x 5

9 x 6

2 ft.	2/6	3/6
2 ft. 6 in.	3/3	4/6
3 ft.	3/9	5/6

A to F & D1
1 1/2 in.Over Channel Brick,
1 1/2 in. each6 x 4 .. 3/3
9 x 6 .. 6/6

TO FACILITATE DELIVERY PLANS SHOULD BE SENT WITH ORDERS.

2 & 4, SOUTH WHARF PADDINGTON. LONDON. W.

L SANITARY

MANUFACTURES.

Telephone

No.

7048

**BROAD & CO.,**
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Address
BROAD
& CO
LONDON

Broad & Co.'s Patent White Enamelled Channel Bends.



S Left



Left



Right



S Right



L Left



Left

Section



Right



R Right

PRICES

4"	12 6
6"	12 6
8"	12 6



Y

Z

J

N 1



N



Y 1

Z 1

 TO FACILITATE DELIVERY PLANS SHOULD BE SENT WITH ORDERS
 ALL CARRIAGE AT RISK OF PURCHASER
 CRATES AND CASES CHARGED FOR AND CREDITED AT HALF PRICE

2 & 4, SOUTH WHARF PADDINGTON, LONDON, W.

Telephone
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7048

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MANUFACTURES.



BROAD & CO.,

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Address
BROAD
& Co.
LONDON

"THE MOST PERFECT INTERCEPTOR."

Broad & Co.'s Channel Interceptor.

(Fig. 37 B.)

PRICE IN BROWN WARE.

4" throughout	7/-
5" " "	10/-
6" " "	12/6
6" taper to 5"	8/6
9" " 6"	12/6



PRICE IN WHITE ENAMEL.

4" throughout	10/6
5" " "	12/6
6" " "	15/-
6" taper to 5"	10/6
9" " 6"	15/-

DESIGNED EXPRESSLY FOR INSPECTION CHAMBERS.

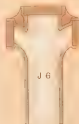
This Interceptor is now so well known, and its advantages so apparent, as to need no special recommendation.

VERTICAL DROP. EASY OUTGO. WATER SEAL OF 3in.

Fall of 2in. in Level, from Intake A to Outgo B. C, Inspection Cap with Stanford Joint.

In ordering Goods made in White Enamel and Brown Ware, it should be clearly stated if "Brown" or "White" is required.

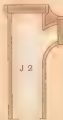
EASY FLUSH INTERCEPTOR.



	BROWN	WHITE WARE
4" throughout	7/-	10/6
5" " "	10/-	15/-



SECTION OF
JUNCTIONS



J 1 2 3 4 5 6

4 5 6 7 8 9

STOCK SIZES OF THESE JUNCTIONS, 4x4, 6x4, 8x6 & 9x8

2 & 4, SOUTH WHARF PADDINGTON. LONDON. W.

L SANITARY

MANUFACTURES.

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BROAD & CO.,

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& CO.
LONDON

BROAD & CO'S

Patent White Enamelled Channels.

SERIES C (1 Section).

The Bends and Junctions (Series C) have been designed to meet the difficulty of arranging irregular subsidiary connections in Manholes, and it will be found that, by using the short Bends, &c., almost any radius can be obtained. Further advantages are gained in preserving the 3" Section throughout and saving the 3" in fall, necessitated by the branch drain delivering over the centre channel.

Architects' special designs will be carefully made to order

TO FACILITATE DELIVERY PLANS SHOULD BE SENT WITH ORDERS.

C 12

C 9

C 9

C 9

C 13



C 10

C 11

C 14

C 15

C 16

C 17



C L Left



C R Left



C L Left



C L Right



C L, C R, & C U.



C R Right



C L Right

Section

4 inch
6 "

3 1/2 "

SANITARY SPECIALITIES OF ALL KINDS KEPT IN STOCK.

Crates and Cases credited at half price.

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BROAD & CO.'S

Patent White Enamelled Channel Bends.

SERIES C. Continued.



C 4



C 5



C 1



C 19



C 20



C 18



C 7



C 6



C 8



C 3



C 21



C 2

P. T. T. BELL, LONDON, S.W. 11, ORILLI

2 & 4, SOUTH WHARF PADDINGTON, LONDON, W.

L SANITARY

MANUFACTURES

Telephone
No.
7048

BROAD & CO.,

Telegraphic
Address
BROAD
& CO.
LONDON

Broad's "Excello" Grease Trap,

Designed to give the maximum of capacity with a minimum of obstruction.

MADE IN WHITE ENAMELLED STONEWARE



A. Inlet to base of Lead, or 3" Stoneware Pipe, which may be brought through and turned down to deliver under water level.

B. 4" Outlet.

C. Auxiliary Inlet, partly cut through, can be tapped out, if required.

D. Inspection Cap, with Standard Joint.

30" x 30" x 31" inside	—	—	25/ each.
20" x 12" x 20" —	—	—	4/6
12" x 6" x 10" —	—	—	2/6
			Drawn with A.

FIG. 1 "EXCELLO" 3" inlet, partly cut through. — 25/-
Dish Sinks with 8" Galvanised Grid — 4/6
Plain Sinks for Sealing, unglazed — 2/6

BROAD'S PATENT GULLEY TRAP.



SECTION.



10" diameter inside, 12" deep.

Base
Inlet

Outlet

A. Inspection Inlet, enabling Trap to be easily cleaned, also forming ready access to drain.
B. Cap for Insertion into Socket A, fixed with Plastic Composition, and effectually sealing the Trap.
The Trap is made square to point C E, then easily curved, all angles being avoided, thus ensuring an easy flush.

PRICE.

Drab Stoneware	10/- each	Inlets, 8d. each inlet extra.
(Including Galvanised Iron Grid) White Enamel	12/6 "	

A larger size of this pattern is kept in stock, 12" diameter inside, 25" deep, price 25/-

NOTE -- Inlets to Gulley Traps are taken as looking up a drain

2 & 4, SOUTH WHARF PADDINGTON, LONDON, W.

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MANUFACTURES

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7043



BROAD & CO.,



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Address
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& CO
LONDON

Yard Gullies.

(Inlets to Gullies are taken rights or lefts looking up a drain.)

SECTION



FIG. 13.



FIG. 13, PLAN



GULLY TOPS

FOR DEEPENING FIG. 13



Size A. F.	Top Inlet	Top Inlet	Top Inlet	Top Inlet	Top Inlet	Top Inlet
6 in	4	35	65	45	45	45
8 in	4	35	65	45	45	45

INLETS 1/- EACH EXTRA.

GULLY TOP

WITH INLET (4")



WHITE BRICK, 1/6



WITHOUT ELBOWS OR INLETS
DEAD WHITE ENAMEL 5/- 5/-



GLASS ENAMEL on top
BROWN 5/- 5/-
WHITE 2/6 2/6



BROWN 5/- 5/-
WHITE 2/6 2/6



EXTRA INLETS 1/- EACH

SINGLE TRAP

Dean's Grease Trap.

SINGLE TRAP, WITH BACK INLET.



FIG. 2

RADIATING BRICKS



PRICE

Size	Top	Top	Top	Top	Top	Top
6 in	3	3	3	3	3	3
8 in	3	3	3	3	3	3

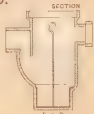


FIG. 3

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& Co.

LONDON

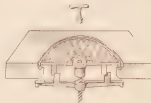
Broad & Co.'s Improved Manhole Cover.

AS USED BY H.M. GOVERNMENT.

CAN BE EFFECTUALLY SEALED IF REQUIRED WITH BROAD & CO.'S PLASTIC COMPOSITION



IMPROVED LOCKING GEAR.



(Patent applied for)

The Groove having been filled with Plastic Compo the Cover is placed in the Frame and the Crossbar forced into position and screwed home.

Improved Concrete Frame and Iron Cover
York Stone Frame and Cover
Galvanised Cast Iron Frame and CoverLarge 4 ft.
Frame 40" x 40"
Cover 25" x 25"Small 3 ft.
Frame 30" x 30"
Cover 20" x 20"Extra Small 2 ft.
Frame 20" x 20"
Cover 15" x 15"25/-
30/-
35/-21/-
26/-
31/-

York do. 23/-

BROAD & CO.'S

AIR-TIGHT MANHOLE COVER.

WITH RUBBER JOINTS & A KEY TO LOCK DOWN.

MICA VALVE AIR INLET.
GALVANISED CAST IRON

FIG 3

For 3" Pipe, 7/6; for 4" Pipe, 8/6

24" x 24" 1/-
30" x 30" 1/6MICA VALVE AIR INLET.
GALVANISED CAST IRON

FIG 4

For 3" Pipe, 7/6; for 4" Pipe, 9/6

SINK STONES.

20" Square 7/6
9" Iron Grate 1/6
9" Do. Galvanised 2/-12" Square 3/6
6" Iron Grate 1/-
6" Do. Galvanised 1/620" Square with 10" Solid
Cover Galvanised 10/-

2 & 4, SOUTH WHARF PADDINGTON, LONDON, W.

Telephone
No.
7048

BROAD & CO.,

Telegraphic
Address
**BROAD
& Co.
LONDON**

Cast-Iron Drain Pipes. (SPECIAL HEAVY.)

COATED WITH ANGUS SMITH'S SOLUTION



T Junction



Y Junction



Elbow



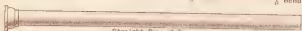
1/2 Bend



1 Bend



1/4 Bend



(Straight Pipe 9 ft)

BORE.		STRAIGHT PIPES			ELBOWS	1/2 BENDS	1 BENDS	1 1/2 BENDS	2 BENDS	3 BENDS	4 BENDS	5 BENDS	6 BENDS
		3 ft.	6 ft.	9 ft.									
4 inch	each	6/-	10/-	12/6	8/-	8/-	12/-	11/-	11/-	10/-	25/-	25/-	25/6
5 "	"	8/-	13/-	17/-	12/6	13/-	17/-	17/-	22/6	22/6	27/6	27/6	27/6
6 "	"	10/-	15/-	21/-	15/-	15/-	21/-	21/6	28/-	30/-	34/6	35/-	35/-

It is suggested that quotations be asked for before ordering, as all prices herein quoted are subject to alteration without further notice

IRON STEP FOR MANHOLES.



1/6 each

GALVANISED LADLE, FOR CLEANING GULLIES.



20 inches long, 2 1/2 each.
30 " " 3/6 "

WOODMAN'S PATENT SCREW PLUG. No 2



The collar (A) of the plug (B) should be inserted into the socket of the pipe (C), and the plug (B) screwed in with a dressing of Plastic Compound.

4 inch. .. 2/6 3/-
6 " .. 3/6 3/9

BROAD & Co.'s SIMPLE DRAIN PLUG, WITH RUBBER RING. FOR TESTING GULLIES.



4 inch .. 4/- each
6 " .. 10/-

SCHOOL BOARD LOOKING GULLY GRATING.



12 x 12 .. 1/6
12 x 18 .. 1/6
18 x 18 .. 1/6

IRON GRIDS.



Plas. Galvd.
12" x 12" .. 1/6

Plas. Galvd.
12" x 18" .. 1/6

Plas. Galvd.
18" x 18" .. 1/6

FOR DEAN'S TRAPS

Plas. Galvd.
For 2" Trap .. 1/6
For 3" Trap .. 1/6
For 4" Trap .. 1/6

This Catalogue supersedes and cancels all previous Lists.

2 & 4, SOUTH WHARF PADDINGTON. LONDON. W.

L SANITARY MANUFACTURES.

Telephone No. 7048

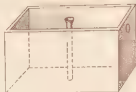
BROAD & CO.,

White Enamelled Cisterns, Sinks, &c.

Telegraphic Address
BROAD & Co.
LONDON

DRINKING-WATER CISTERNS.

PRIZE MEDAL
AWARDED
SANITARY INSTITUTE,
GREAT BRITAIN,
1885.



PRICES AT LONDON DEPOT.

Size.	Trade, Weight 2 1/2 Gall.	On Board	Price.
35 x 24 x 18 1/2	30	48	75/-
43 x 24 x 20 ..	40	58	90/-
48 x 24 x 24 ..	60	68	105/-

Strong Brass NICKEL PLATED Fittings, with Ground-in Waste Washer, Nuts, and Unions; Size 1 1/2 in., Price, 10 6.
Without Waste for Draw-off; Size, 1 in. .. 6 6.

These Cisterns have holes for Draw-off, and Overflow connections

SCULLERY AND BUTLERS' SINKS.

SCULLERY SINK.



ANGLE SINK.



BUTLERS' SINK.



Size Outside	Inside	Depth	Price
20 x 15 x 6 1/2	15 1/2	6 1/2	15/-
24 x 18 x 6 1/2	18 1/2	6 1/2	21/-
27 x 18 x 6 1/2	18 1/2	6 1/2	25/-
30 x 20 x 6 1/2	20 1/2	6 1/2	30/-
36 x 24 x 7	24 1/2	7	37/-
42 x 24 x 7	24 1/2	7	43/-
48 x 24 x 8	24 1/2	8	50/-

White Enamel	15/-	20/-
Cane Glazed ..	5/-	7/-

Brass Pugs, Washers,
and Chains, 5/- each.



White Enamel					
21	x	15	x 6 1/2	Salu outside	17/-
24	x	15	x 6 1/2	.. ..	21/-
24	x	18	x 10 1/2	.. ..	25/-
27	x	18	x 10 1/2	.. ..	30/-
30	x	18	x 10 1/2	.. ..	34/6
36	x	21	x 11	.. ..	40/-
42	x	24	x 12	.. ..	50/-
48	x	24	x 12	.. ..	60/-

It is most important to give the position of the Waste Hole when ordering Sinks.

ENAMELLED BATHS.

BLOP SINK.



WASH TUB.



24 x 20 x 13 1/2	..	35/-
27 x 18 x 13 1/2	..	30/-
Enamelled Grids 5 1/2 in. dia.	..	2/6

1 1/2 ft. x 2 1/2 ft. 47/- each
2 1/2 ft. 6 1/2 x 2 1/2 ft. 6 1/2 .. 57/- 0 0
6 1/2 x 2 1/2 ft. 6 1/2 .. 57/- 0 0
Prices marked S.G. & Co. London & Co. London
All-bat and second-class Baths supplied at Prices
varying with quality.

24 x 20 x 13 1/2	..	35/-
27 x 20 x 15	..	41/-
30 x 20 x 15	..	47/-
33 x 20 x 15	..	53/-
36 x 27 x 15	..	60/-

2 & 4, SOUTH WHARF PADDINGTON, LONDON W.

L—SANITARY MANUFACTURES.



BY HER
MAJESTY'S



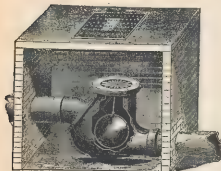
ROYAL LETTERS
PATENT.



F. DYER, SANITARY AND HOT WATER ENGINEER,

66, High Street, Camden Town, London, N.W.

PATENTEE OF THE AUTOMATIC TIDAL VALVE TRAP AND AIR-TIGHT MANHOLE COVER.

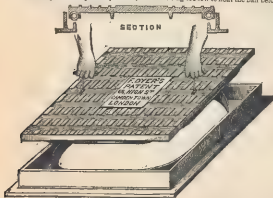


The Highest Awards at the International Medical and Sanitary Exhibition, South Kensington, London, July, 1881, after careful examinations and thorough tests by all the Judges.

The Automatic Action of this Tidal or Flood Trap prevents the backflow of sewage. The entrance of sea or other waters into places where the sewage discharges into the sea or a tidal river is therefore prevented.

The tide or flood water backing up the drain enters the onto branch, rises in the chamber, and floats the ball, which, as the water rises, approaches the inlet or house end branch, and finally both itself firmly upon the seating, thus effectually closing the orifice, and preventing the water entering the building. Consequent upon this action, the greater the amount of water pressure there is behind, the more completely trapped, or sealed, the trap becomes. By reason of the arm being always slightly inclined towards the inlet branch, there is no danger of the ball sticking with the arm vertical, or of its moving the wrong way. When the water subsides again, the ball falls with it, unsealing the inlet, and leaving a clear passage for the sewage, &c.

The above mentioned Traps are kept in stock for six and nine inch drains, other sizes to order. The six inch size is also made with inlet arm, only four inches above the outlet, for drains that have very little fall (the above engraving has 20 inches). The water in these will flow up the inlet arm about three feet before the Valve Trap becomes perfectly sealed, the arm being too low to float the ball before the water runs into it, but the result is the same.



F. DYER'S PATENT 'AIR-TIGHT MAN-HOLE COVER, which can be noticed in the stone above this trap, has the following advantages over others: It is easily removed with the proper handles, and as easily replaced; thus the trouble of opening, and the danger of falling on any Workman below is entirely removed, whilst the price is moderate.

MADE IN THE FOLLOWING SIZES:

No.	Inches.	Inches.
1.	25 x 22	opening in clear 21 x 19, 48/-
2.	21½ x 18;	" 18½ x 15, 30/-
3.	13 x 13;	" 10 x 10, 28/-

ALSO
4. 21½ x 18; opening in clear 18½ x 15, 30/-
No. 4 is an Inspection Door, the Frame being made of Iron, and the Lifting Cover of Stone, which has to be luted in with mortar, thus enabling it to be easily lifted. TRY ONE.

Patentee also of DYER'S Hot Water Circulating Cylinder System,

WHICH IS
SAFE FROM EXPLOSION.

Illustrated Catalogues on Application.

F. DYER, PATENTEE AND MANUFACTURER.

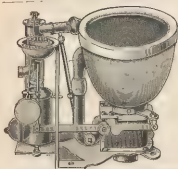
CONTRACTORS' COMPENSUM.

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321

THOMAS CRAPPER & COMPANY,

BY APPOINTMENT TO H. R. H. THE PRINCE OF WALES.



No. 78.—Valve Closet, with white china dish with gold lines, and handle, white ware flushing rim basin, 1 in. supply valve, copper air regulator, complete as shown.

					£3 9 6
If with $1\frac{1}{2}$ in. valve	...	...	...	Extra	0 3 6
" Ornamental Basin	...	...	...	"	0 3 6
" White and Gold Basin	...	...	...	"	0 8 9
" Box Enamelled inside	...	...	...	"	0 4 9
" Box fitted with Brass Top	...	...	...	"	0 6 3
" Box fitted with union to connect Ventilating Pipe	...	...	...	"	0 3 9
" 4 in. outlet	...	...	...	"	0 7 6

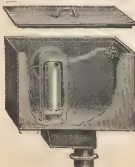


"THE OVINGTON"
WASH-DOWN W. C. BASIN AND
TRAP.

FIG. 98.

White-ware Basin with Flushing Rim, and				
Trap (in two pieces)	...	...	...	£0 14 6
Blue printed Basin and ditto	...	...	...	0 16 6

Traps can be had either P or S.



AUTOMATIC FLUSH TANKS FOR DRAINS.

30 Gall. Galvanized Iron Flush Tank										43 3 0
40	17	22	27	32	37	42	47	52	57	3 12 6
50	19	24	29	34	39	44	49	54	59	4 2 6
60	23	28	33	38	43	48	53	58	63	4 12 6
75	27	32	37	42	47	52	57	62	67	5 3 6
100	31	36	41	46	51	56	61	66	71	5 18 6

Complete as shown.

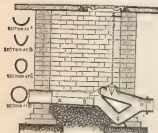
L—SANITARY MANUFACTURES.

THOMAS CRAPPER & COMPANY,

MARLBORO' WORKS, CHELSEA.

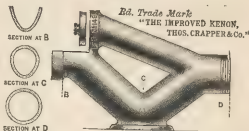
Show Rooms and Offices: 50, 52, & 54, MARLBOROUGH ROAD, CHELSEA, LONDON, S.W.

THE "IMPROVED KENON." DISCONNECTING TRAP



No. 1. The Improved Kenon Trap, 4 in. 6 in. of glazed stoneware, with gun metal valve, galvanised iron chain, pull and bracket, and brass screw cap

31/- 34/6



Ed. Trade Mark
"THE IMPROVED KENON,"
THOS. CRAPPER & Co."

Improved channel pipe, white glazed inside, and on top edge. 4 in. 6 in. 3/3 4/6

No. 2. Of glazed stoneware 4 in. 6 in. 9/- 12/6
If Traps glazed white inside, extra 3/6 4/-
" out extra 7/- 8/-



IMPROVED SANITARY AIR-TIGHT FRAMES AND COVERS, FOR DRAINS AND MANHOLES.

FIG. 195.

		Opening.		Painted, Galvanised.	
26 in. by 26 in. ...	21 in. by 21 in. ...	27/6	42/6		
25 1/2 " " 21 1/2 " ...	20 " " 16 " ...	22/-	34/6		
20 " " 20 " ...	15 " " 15 " ...	18/6	27/6		
26 1/2 " " 21 1/2 " ...	21 " " 6 " ...	15/6	25/6		



IMPROVED SYPHON WATER-WASTE PREVENTER.

FIG. 119.

Cast Iron, 2-Gallon for Hopper Closet, with Chain and Pull, complete	£0 17 6
Cast Iron, 3-Gallon for Wash-out Closets	0 19 6
" " for Valve Closet	1 6 9
If Galvanised, extra	0 4 6
	323

TT 2 2

L—SANITARY MANUFACTURES.

A. EMANUEL & SONS, Lim.,
SANITARY ENGINEERS,
MARYLEBONE LANE, W.

Special attention is given to the Manufacture of

SLATE AND MARBLE LAVATORIES,

Both in Cabinets for private use and in Ranges for Public Buildings.

ESTIMATES

Will be Furnished on Application for any Designs in Plain and Enamelled Slate, White and Fancy Marbles, the latter including St. Ann's, Rouge Royal, Dove, Bardella, St. Sylvester, Sienna Jaune Lamartine, &c.

A CHOICE SELECTION OF

Fancy Printed, Coloured, and Gilt Basins

Of the Best Designs are kept in Stock. The Cabinet work is guaranteed of the very best finish, and where Wood-work is not required all parts and fittings are supplied, ready for fixing by the Plumber or Builder.

All the Requisite Slabs, Fittings, &c., are supplied for the Erection of Urinal Ranges in Plain and Enamelled Slate, and any Description of Polished Marble; and Quotations may be had on application.

ESTIMATES GIVEN FOR SPRAY OR NEEDLE BATHS. APPLY FOR CATALOGUES.

A. EMANUEL & SONS, LIMITED,
Patentees and Manufacturers of Sanitary Appliances.

MANUFACTORIES.

LONDON: GEORGE STREET, and BLANDFORD STREET, MARYLEBONE, W.
BIRMINGHAM: PHENIX WORKS, SPEAKING STILE WALK, HOLLOWAY HEAD.

SHOW ROOMS:

GEORGE STREET & HIGH STREET, MARYLEBONE, LONDON, W.

WAREHOUSES.

MARYLEBONE LANE & HIGH STREET, MARYLEBONE, LONDON, W.

OFFICES

53 to 57, MARYLEBONE LANE, LONDON, W.

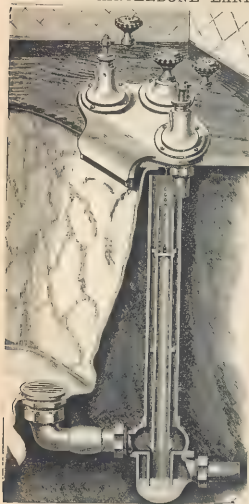
Telegrams: "EMANUEL, LONDON."

(Where all Communications should be addressed).

[Telephone, No 7,028]

L—SANITARY MANUFACTURES.

A. EMANUEL & SONS, LIMITED, SANITARY ENGINEERS, MARYLEBONE LANE, LONDON, W.



EMANUEL'S IMPROVED BATH FITTINGS.

No. 66. Hot, Cold, and Waste Bath Fittings (very complete), with 2 1/2 in. Four-way Valves, as illustrated. Brass, 28 5/6; Cast-iron, 28 17/8 6/6.

No. 67. Improved Hot Waste and Overflow, carrying a 1/2 in. clear-way throughout. With Trap, 22 3/4 6/6; without Trap, 21 17/8 6/6.
(Trap may be fixed to discharge in any direction.)

No. 709. Special Full-way Washer, Grate, and Union. Brass, 7/6; Plated, 10/6.

No. 117.

EMANUEL'S IMPROVED SELF-CLOSING CAM ACTION VALVE.

The working of this Valve is protected by the patented cam action, as illustrated. By pressing the screw in the handle, the working parts may be raised, or a slight downward pull will close the Valve. This is a great advantage, as permanent repairs are generally very difficult to get at, and the Valve is not liable to damage from any cause when, with the ordinary valves, it is found necessary to remove them for repairs.

Polished Brass, as illustrated, 16/6.
Nickel Plated, 24/6.

No. 248.

EMANUEL'S IMPROVED HALF-TURN SCREW-DOWN VALVES FOR LAVATORIES & BATHS.

The Jamper of this Valve is raised with metal, and fitted loosely to the spindle with two screws, and is raised or depressed as the spindle is turned. The spindle works in a quick thread, and the half-turn opens the Valve.

For Lavatories For Baths

	1 1/2 in.	2 in.	2 1/2 in.	3 in.
Polished Brass	11/6	1 10/6	1 10/6	1 10/6
Nickel plated	10/6	10/6	21/6	24/6
Cast-iron	1 10/6	1 10/6	1 10/6	2 0/6



EMANUEL'S IMPROVED GUN METAL FULL-WAY SCREW-DOWN STOP COCK.

A 1/2 in. of the pattern are used in the 1/2 in. and 1 in. sizes. Recommended for Little Machine Valves. Also made as Full-way Valve.

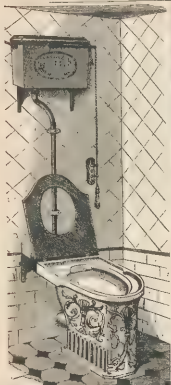


Will stand the hardest pressure.

With Quick Thread at same prices.

325

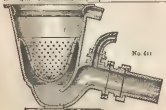
A. EMANUEL & SONS, LIMITED, SANITARY ENGINEERS,
MARYLEBONE LANE, LONDON, W.



EMANUELS
PATENT IMPERIAL PEDESTAL CLOSET.

The following are prices for pedestals without or
with "Imperial" Waterfall as above:

No. 54-A	Complete standard pedestal	\$7 76
No. 54-B	"Imperial" pedestal	8 15



**ENAMELED PATENT GLASS-ENAMELLED CAST IRON
SLOP RECEIVER STRAP**, with 4 Joints & Flanging Rim
and Sipping Top that meet and design only be found in any
direction. Item value Six and 3/4 in Brass Gasket
Connections, straight or bent, with Ventilating Union, as
Illustrated \$3.00. Robert Ventilating Union, \$2.10.

326



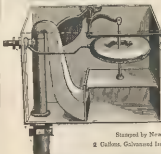
WASHOUT CLOSET & TRAP.

Is ONE or Two Pieces

19. A set of two Earthenware
pans, one black and
one white, with a
black and white
band around the
middle of each.

N=50 One piece, with $\Phi = 1$.
N=192 One piece, with P trap.
N=249 Two pieces with flanged connection and seal gaskets.

W = 0.08	W = 0.08
30.7	37.6

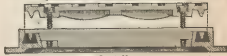


No. 9.
**EMANUEL'S PATENT
 VALVELESS AND
 NOISELESS OBLONG
 SYPHON
 WATER WASTE
 PREVENTER**

Copper or Brass Syphon
3 in. x 30 in.
V. or Copper Boat,
4 in. overflow
Brass Chain and Chain Pull
Gal. Iron, Cast Iron
9 Gallons 25/- 30/6
2 " 31 " —

Starzped by New River Company.

g. Gallons, Galvanized Iron, 22/6; Cast Iron, 31/6



Outside Measure

No. 1540

EMANUEL'S PATENT AIR TIGHT MAN HOLE COVER

An endless rubber ring is sprung into a channel running round the frame, and being wider at the bottom than at the top the ring is held fast in position. On the upper surface of the rubber is a V groove, and a corresponding V projection on the Cast Iron Cover is arranged to fit into this. The cover is fastened down by six metal bolts, and the projection referred to causes the rubber to compress in the shape of a V on the frame, thereby forming a tight seal.

PAINTED GALVANIZED.

Outside	{ 2 ft. 5 in. by 1 ft. 10 in.	Inside	{ 2 ft. 5 in. by 1 ft. 7 in.	35'	55'
Measure.	{ 2 ft. 3 in. by 1 ft. 8 in.	Measure	{ 2 ft. by 1 ft. 5 in.	27'	43'
	{ 2 ft. by 1 ft. 6 in.		{ 2 ft. 9 in. by 1 ft. 3 in.	24'	39'

L—SANITARY MANUFACTURES.

A. EMANUEL & SONS, LIMITED.

SANITARY ENGINEERS & BRASS FOUNDERS.

Manufacturers of Every Description of Sanitary Appliances.

HOT & COLD WATER VALVES, WATER WASTE PREVENTERS, &C.

Works—LONDON AND BIRMINGHAM. Show Rooms—GEORGE STREET, MARYLEBONE

Offices—53 to 57, MARYLEBONE LANE, LONDON, W.

+ EMANUEL, LONDON -

[ILLUSTRATED CATALOGUES POST FREE]
[ON APPLICATION]

Telephone—
No. 7,026.

EMANUEL'S PATENT VALVE CLOSET BASINS AND APPARATUS.

[illegible]

Extended Valve Closures are made with either 3 in. or 4 in. Bottoms, or Outlet Valves, the latter being strongly recommended. With their Four inch Outlet V.C., fitted with the Improved Looking-Glass Bottom Valve (the glass forms the check, and shut without any projecting rim against the rubber seating), and 1½ in. Supply Valve, it is absolutely impossible for paper or anything to catch in the Valve, and the effective flushing of the basin is guaranteed.

ORDINARY 3'	SPECIAL 4'
U. S. M. AND	Q. T. M. AND
1' SUPPLY.	1 1/2' SUPPLY.



540

EMANUEL'S PATENT PHOENIX VALVE CLOSET as above, but *trapped* *above* the floor line with Sunk Dish 1 in. Supply Valve, Copper Regulator, Lead Trap, with Flanged Outlet, Cap and Screw in Trap of Overflow, Brass Collar and Rubber Seating, \$5.85.

¹This Closet can be made to discharge in four different directions, viz., right, left, back, and at angle between back & left hand (setting).

1½ in. Ventilating Union, 5/- extra. (1½ in. and 2 in. also made).

	1st Quality	2nd Quality
Best Quality Valve Closet, with Patent Niagara Double Flushing Ram Basin, Sank Dish, Supply Valve Copper Regulator, Lead or Enamelled Iron Box, Brass Closet, Cap and Screw is Trap Overhead, and Indiarubber Seating	£4 7 6	4 7 0
Second Quality do. do.	3 8 6	4 6 0
If fitted with the Patent Phoenix Niagara Basin, with Earthenware Wespung Pipe. Best Quality	4 8 6	5 6 0
Second Quality do. do.	3 15 6	4 13 0
Best Quality V.C.'s fitted with Emanuel's Improved Looking Glass Bottom Valve extra	8 0 0	0 12 0

L—SANITARY MANUFACTURES.

EVERED & Company, Lim.,

London { 28 & 29, DRURY LANE, W.C.
50, HOLBORN VIADUCT, E.C.



BIRMINGHAM: Surrey Works, Smethwick; and Barnet Works, Devonshire Street.

EVERED'S "SMETHWICK" SANITARY CLOSET

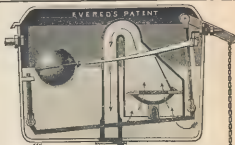
96114 THE

PATENT SYPHON FLUSHING CISTERN. No. 0517.



Price complete

from £39 0



ACTION.—By pulling carrying up the table in just lifting over the head start the Syphon; the at same time, person in the direction of the great force till the requisite two gallons or three gallons is passed, when table and lever return to normal position, ready for further action.

Price - 2 Gallons, Painted, 18/6; Galvanized, 26/-

Approved by the Principal Water Companies in London and the Province.



THE "SMETHWICK" CLOSET BASIN.

19	Cane and White Earthenware	..	..	..	21
20	all White	..	..	..	26
21	Cane and Printed	..	..	..	26 1/2
22	White and Printed	..	..	..	22 1/2
23	Blue Paley Pattern	..	..	..	24 1/2

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L—SANITARY MANUFACTURES.



IMPROVED VALVE CLOSET,

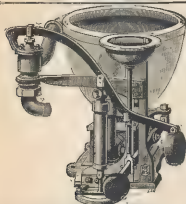
"ORDINARY" QUALITY.

Without Supply Valve and Regulator is No. 0600.
With " " " " is No. 0601.
NOTE.—Can be had with 4-in. Outlet Valve and with mirror bottom valve.

No. 0600.	With white basin	35/6 each
	With printed basin	38/- "
No. 0601	With 1-in. valve, brass or japanned regulator and white basin	48/6 "
Do.	do do and printed basin	51/6 "
	If copper bellows regulator extra	2/- "
	If 1 1/2-inch valve	3/- "
	If 2-inch valve	1/6 "

EVERED'S
CABINET BRASS FOUNDRY BOOK,

28, DRURY LANE, LONDON, W.C.



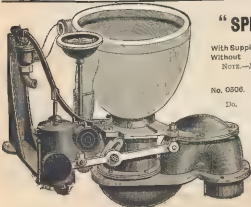
IMPROVED VALVE CLOSET.

"BEST" QUALITY.

With Supply Valve and Regulator is No. 0603.
Without " " " " is No. 0602.
NOTE.—Can be had with 4-in. Outlet Valve and with mirror bottom "false."

No. 0603.	With 1-in. supply valve, printed basin, and brass regulator	60/- each
"	With 1 1/2-inch " " " " " "	73/- "
"	If "best" copper bellows regulator, extra	3/- "
"	If white basin	less 2/- "
No. 0602.	Closet only, with printed basin	52/- "
"	If with white basin	less 2/- "

EVERED'S
Catalogues of General Water Fittings,
28, DRURY LANE, LONDON, W.C.



IMPROVED "SPECIAL" VALVE CLOSET,

TRAPPED ABOVE FLOOR LINE.

With Supply Valve & Regulator on separate frame, is No. 0606
Without " " " " is No. 0607
NOTE.—Made with edges as shown, or with edges horizontal in any
direction, to suit position of Soil Pipe.

No. 0606.	With 1-in. valve, japanned bellows or brass regulator, and printed basin	62/6 each
Do.	do do and white basin	65/6 "
	Extra, if 1 1/2-in. valve	3/- "
	do, if copper bellows regulator, best	3/- "
	Less, if 2-inch valve	1/6 "
No. 0607.	With printed basin	47/- "
" "	With white basin	49/- "

SPACIOUS SHOWROOMS
FOR GASFITTINGS, &c., &c.,
50, Holborn Viaduct, London, E.C.



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L—SANITARY MANUFACTURES.



GOLD MEDAL
Exposition Universelle,
PARIS, 1889.

HIGHEST HONOURS
AT ALL
International Exhibitions
AWARDED

GOLD MEDALS
International Exhibition,
BARCELONA, 1888

GEORGE JENNINGS
SANITARY ENGINEERS,
STANGATE, LONDON,
FOR HIS IMPROVED

Copper Enamelled Baths, Bath Room Appliances, Tip-up and Lift-out Lavatories, Water Closets, Urinals, Sinks, Hydrants, Pumps, Sluice Valves, and Water Fittings of every Description.

WARMING AND VENTILATING ARRANGEMENTS.

Stoneware Drain Pipes and Connections, and Improved Electric Speaking Tubes, Bells, &c.

JENNINGS' PATENT VALVE CLOSET AND TRAP.



IN ONE PIECE OF STRONG GLAZED EARTHENWARE,
PRICE FROM 70s. UPWARDS.

Over 100,000 in use. Fixed in all the principal Clubs, Hotels, Mansions, Railway Stations, Hospitals, Barracks, Asylums, &c., in all parts of the world.

The Cleanest and most efficient Closet ever produced, free from complication.

With latest improvements in Service Valve Ball Overflow Discharge Plug, and Base under Trap. Ensuring the maintenance of a perfect connection with soil pipe.

Fitted with Waste Preventing arrangement, 25s. extra.

Jennings' Patent Waste-Preventing Cistern,
WITH AFTER FLUSH.

Applicable to Valve Closets of all kinds. Approved by all the principal Water Companies. An absolute Waste Preventer, dividing the regulated quantity into two portions. The first cleanses the Basin when the handle is raised, the second provides an abundant and equally rapid after-Flush, recharging the Basin, a most essential feature in connection with Valve Closets.

PRICE FROM 38s. UPWARDS



JENNINGS' VENTILATING, & DRAIN TRAP,
In Highly Glazed Vitrified Stoneware.

Designed for introduction at the point of junction with cesspool or sewer. Being formed in two pieces the socket A may be turned in any required direction to the line of drain, and several pipes may be connected to one outlet, by the substitution of a junction piece, with two or three inlets.

TRAP, WITH SINGLE JUNCTION PIECE, 7s. 6d. AND UPWARDS.



L—SANITARY MANUFACTURES.

Jennings' Improved Patent "Tip-Up" and "Lift-Out" Lavatories.

AS ARRANGED FOR THE
RETIRING ROOMS OF HOTELS, CLUBS, RAILWAY
STATIONS, AND OTHER PUBLIC BUILDINGS,

ALSO WITH CABINET ENCLOSURES SUITABLE FOR

Mansions, Villas, and every description of Private Residences.

Secure in use, but permitting instantaneous and easy removal for cleaning. Architects
will please specify Jennings' Improved Patent "TIP-UP" and "LIFT-OUT" Basins,
with which his Lavatories are now fitted, and as a guarantee for their efficiency bear his
full name and address.

Made to suit any position, with Plain Slate, Enamelled Slate, or Marble Tops.

PRICE FROM 70s. PER BASIN UPWARDS.



"THE PEDESTAL VASE."

(Registered No. 16,300)

JENNINGS' IMPROVED W. C. APPARATUS, COMBINATION
URINAL AND SLOP SINK,

Amongst other advantages,

ENSURES PERFECT CLEANLINESS, AND AFFORDS EXCEPTIONAL
FACILITIES FOR AN ABSOLUTELY SOUND CONNECTION WITH SOIL PIPE

Prices. -With Hinged and Clamped Seat, Cast Iron Waste Preventing Cistern, with Syphonic
Action, and length of 14 down service and joint complete, from 45 17s. 6d. upwards.



JENNINGS' IMPROVED PATENT COMBINED WASH-UP SINK,
IN GALVANISED CAST IRON, from 40s. upwards.

FOR KITCHENS, SCULLERIES, &c.

By lowering Standpipe F, it can be used as a Wash-up; when raised, waste waters freely
escape through the Slot G, which acts as a grating (but is not so easily stopped up). When lined
with pine, it is most suitable for Butlers' Pantries; for washing China, Glass, &c.



JENNINGS' PATENT HOUSEHOLD SLOP SINKS,
IN PLAIN OR ENAMELLED SLATE, TO SUIT VARIOUS POSITIONS.

Price, with Cold Supply Tap, from 84s. upwards.

JENNINGS' PATENT URINALS,

ARRANGED FOR

CLUBS, BANKS, THEATRES, SCHOOLS, RAILWAY STATIONS,
and other Public Buildings.

COMPACT, EFFICIENT, AND DURABLE.

Immense Economy effected in the Water Supply.

PRICE FROM 26 6s. PER PERSON.



ILLUSTRATED CATALOGUES POST FREE ON APPLICATION.

Telegraphic Address—"JENNINGS, London."

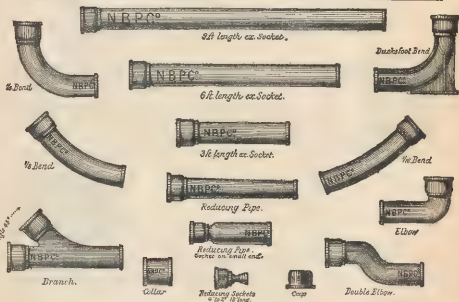
Telephone No. 4680.

L—SANITARY MANUFACTURES.

THE NORTH BRITISH PLUMBING & SCIENTIFIC SANITATION Co.,

86, Newman Street, Oxford Street, W.

Patentees & Sole Manufacturers of the SCOTT-MONCRIEFF SYSTEM OF CAST IRON DRAINAGE.



PRICES (subject to fluctuations of Iron Market) OF

SOCKET PIPES AND CONNECTIONS FOR HOUSE DRAINAGE.

4 inch Pipes	..	9 feet lengths	..	3/11 per yard.
5 "	"	9 feet "	"	8/1 "
6 "	"	9 feet "	"	8/4 "
4 "	"	6 feet "	"	8d. " extra.
5 and 6 "	"	6 feet "	"	1/- " "
4 "	"	3 feet "	"	1/- " "
5 and 6 "	"	3 feet "	"	1/4 " "
4 inch connections,	10/4 per cwt.			Special Patterns Bends and Branches
5 and 6 "	15 9 "			

DELIVERED AT OUR WORKS.

These Pipes vary from $\frac{1}{16}$ in. to $\frac{1}{2}$ in. in thickness, and in weight from 50 lbs. per yard for the 4 inch Pipe to 90 lbs. for the 6 inch Pipe. The sockets are extra thick to allow of caulking with lead, as in street mains.

TRADE DISCOUNT TEN PER CENT.

L—SANITARY MANUFACTURES.

THE NORTH BRITISH PLUMBING & SCIENTIFIC SANITATION Co.,

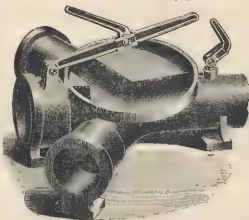
86, Newman Street, Oxford Street, W.

Patentees & Sole Manufacturers of the SCOTT-MONCRIEFF SYSTEM OF CAST IRON DRAINAGE.

PATENT CAST IRON INSPECTION CHAMBER,

(ROUND PATTERN) 7

This apparatus can be made with any number of branches; the whole being rendered gas tight by a cast iron cover with imperishable joint, and cam action lever. By this means an entire system of drains can be tested by hydraulic pressure, and inspected at a moment's notice by an unskilled workman. It supersedes inaccessible junction pipes on the line of drains, and is fixed to the cast iron drain pipes by socket joints run with lead, and caulked, giving the same security as in the case of high pressure mains.



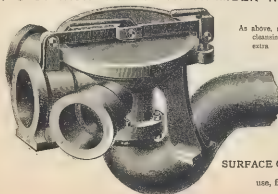
These Cast Iron Inspection Chambers have been adopted by H.M. Office of Works, the Post Office, &c., and supplied to Kensington Palace, Clubs, Banks, and other Public Buildings; also Private Mansions and Houses throughout the country.

PRICE.

3" Main Drain	..	4	5	0
Pipe	..			
6" Main Drain	..	4	15	0
Pipe	..			
Each Inlet	..			
branch, up	..			
to four (two	..			
on each side),	..	0	17	6
extra	..			

PATENT CAST IRON INSPECTION CHAMBER WITH TRAP.

This Chamber can be arranged for any number of branch inlets upon each side, and is provided with a disconnecting trap and a cleansing eye to the main sewer by means of a Y junction. It can be tested and inspected with the same facility, and is secured to the drain pipes as above described.



PRICE.

As above, also Trap, with
cleansing eye to sewer,
extra 0 18 6

Special quotation for
more than four inlet
branches (two on each
side).



SURFACE COVERS for general

use, from 28/- each.

TRADE DISCOUNT TEN PER CENT.

L—SANITARY MANUFACTURES.

THE NORTH BRITISH PLUMBING & SCIENTIFIC SANITATION Co.,

86, Newman Street, Oxford Street, W.

Patentees & Sole Manufacturers of the SCOTT-MONCRIEFF SYSTEM OF CAST IRON DRAINAGE.

PATENT CAST IRON INSPECTION CHAMBER. (SQUARE PATTERN.)

Four Branch Inlets (two on each side) or fewer can be attached to this pattern as required, and a disconnecting trap with cleansing eye towards sewer can also be fixed. This form of chamber is expressly designed for the smaller class of houses, and is especially recommended for building estates.



5 inch Main Drain Pipe .. £3 5 0
6 inch Main Drain Pipe .. 3 15 0
Each Inlet Branch extra .. 0 17 6

Trap, with
cleansing
eye to sewer,
extra, 18/6

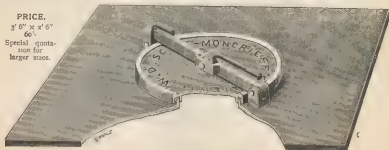
PRICE 4 inch Main Drain Pipe £2 15s.

PATENT CAST IRON GAS-TIGHT COVER,

With Plate combined, for Building into Brick Manholes.

This is designed for Manholes which provide access to Stoneware Drains, the Plate being cast to any required dimensions for building into the brickwork and is recommended as being absolutely gas tight, the Cover being provided with Imperishable Joint and Cam Action Lever, as described on preceding page.

PRICE.
3' 6" x 4' 6"
60'.
Special quotation
for
larger sizes.



SURFACE COVERS for general use, from 28/- each.

L—SANITARY MANUFACTURES.

THE NORTH BRITISH PLUMBING & SCIENTIFIC SANITATION Co.,

86, Newman Street, Oxford Street, W.

Patentees & Sole Manufacturers of the SCOTT-MONGRIEFF SYSTEM OF CAST IRON DRAINAGE.

CAST-IRON GULLEY TRAP.



This has the advantage of providing three sections, so that rain water, sink wastes, &c. may be discharged either over or beneath the ground level as required, the trap-outlet being lead-caulked to the drain.



PRICES

	L.	S.	D.
A ..	4	0	
B ..	6	0	
C ..	7	6	

PATENT IMPROVED GREASE TRAP.

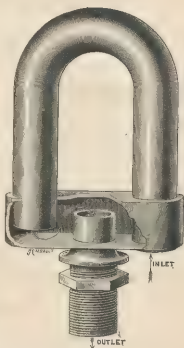


These are provided with cleansing eyes to inlet and outlet branches with screwed brass plugs, and baffle plates for intercepting the grease; also a cast iron moveable dish and handle, and surface grating.

PRICE

Brown Earthenware, 44s White Glazed Earthenware, 60s

PATENT AUTOMATIC FLUSHING SYPHON.



This can be fixed to any cistern, irrespective of its shape or dimensions, and is provided with brass union and washer, also cap and lining for connection to outlet pipe.

PRICE.

Per inch diameter of outlet pipe, up to 3 inches, 15s.

SPECIAL QUOTATIONS FOR LARGER SIZES

TRADE DISCOUNT TEN PER CENT.

111

L—SANITARY MANUFACTURES.

JOHN FELL & COMPANY,



ST. * JAMES'S * BRASS * FOUNDRY,

WOLVERHAMPTON.

MANUFACTURERS OF SANITARY APPLIANCES

Water Closets, Baths, Lavatories, &c.

*PUMPS, WATER WORKS FITTINGS, PLUMBERS'
AND ENGINEERS' COCKS, VALVES, &c.*

**PATTERN BOOKS SENT ON RECEIPT OF
TRADE CARD.**

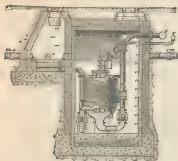
**A LARGE STOCK IS KEPT AT OUR NORTH DEPÔT,
69, WESTGATE ROAD, NEWCASTLE-ON-TYNE.**

LONDON OFFICE, 9 FENCHURCH STREET, E.C

335A

L—SANITARY MANUFACTURES.

THE SHONE HYDRO - PNEUMATIC SEWERAGE SYSTEM.



SHONE'S PNEUMATIC EJECTORS,

For Raising Sewage, Sludge, Pail Contents, Water, &c

ADVANTAGES:

SEWAGE GAS NOT GENERATED.

IMPOUNDING OF SEWAGE ALTOGETHER PREVENTED.

SMALL PIPE SEWERS ONLY REQUIRED

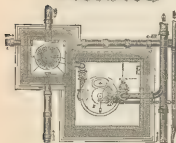
Any number of Ejector Stations may be economically worked from one
Air Compressing Station

Each Ejector works Automatically, requiring no attention

REFERENCE

A. Pneumatic sewage ejector; B. Sewage Inlet ball-valve; C. Sewage outlet ball valve; D. Bell actuating automatic valve; Dr. Cup graduating automatic valve; Ds. Spindle or rod actuating automatic valve; E. Sewage inlet-pipe; F. Sewage outlet-pipe; G. Sewage delivery main (cast-iron); H. Automatic valve; I. Compressed air inlet pipe; J. Exhaust air outlet-pipe; K. Compressed air main (cast-iron); L. Gravitating stone-ware pipe sewers; M. Grating to prevent sticks, &c., from entering ejector

The above system is in operation at a number of places, and has been adopted by the English Government for the drainage of the Houses of Parliament, Westminster, and by the Municipality for the drainage of Rangoon, Burmah, where works capable of dealing with the Sewage of a population of 42,000 people were opened by H.E.H. Prince Albert Victor, on 23rd December, 1889. The Ejectors are also used at Rangoon for the purpose of giving a high-pressure water supply to the town.



THE SHONE HOUSE SEWER EJECTOR, OR HYDRAULIC FLUSH TANK.

ADVANTAGES:

IT IS

AUTOMATIC IN ACTION.

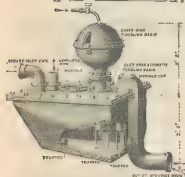
A PERFECT TRAP AGAINST SEWAGE GAS.

CANNOT GET OUT OF ORDER.

THOROUGH IN ITS FLUSHING EFFECTS.

Easily Regulated for Times of Discharge.

Send for Circulars and Prices.



HUGHES & LANCASTER,

MANUFACTURERS, CHESTER.

CONTRACTORS' COMPENDIUM

V V

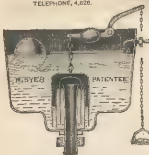
327

335 B

L—SANITARY MANUFACTURES.

MILTON SYER, PATENTEE AND MANUFACTURER, 36, RYE LANE, PECKHAM, S.E.

TELEPHONE, 4.020



THE 'PECKHAM' SYPHON CISTERN

AS SUPPLIED TO H.M. BOARD OF WORKS.

Is the Cheapest Valveless Syphon in the Market.

NO RUBBERS. NO VALVES.

SIMPLE AND SILENT IN ACTION. CERTAIN AND UNIFORM.
FLUSH OF TWO OR THREE GALLONS.

PASSED BY THE PRINCIPAL LONDON AND PROVINCIAL WATER COMPANIES.

REVISÉD PRICES.

Cast-Iron Cistern and Syphon 2 gal., 1½ in. union ..	..	..	12/8 each.
Best Quality " "	fitted with Silent Valve and strong unions	..	15/6 "
Galvanized " "	" "	"	20/- "
Cast Iron Cistern and Syphon 3 gal., 1½ in. union ..	..	..	17/8 "
Best Quality " "	fitted with Silent Valve and strong unions	..	21/- "
Galvanized " "	" "	"	25/- "

THE 'TRENT' SANITARY CLOSET

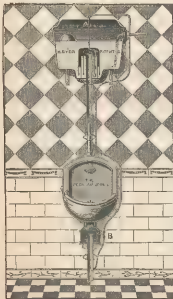
To see and hear
 the best of the best

"THE PECKHAM."

AUTOMATIC URINAL FLUSHING CISTERN

445

SELF-FLUSHING APPARATUS.

[illegible]

PRICES.

Cast Iron Clusters Zinc Syphon and Apparatus	..	..	..	..	..	30/-
Galvanized Iron with Copper Syphon and Apparatus	..	..	..	..	..	40/-



TREND SANITARY CLOSET

PRICES

White and Neutral, painted inside and out	27 6
White or Ivory	23 6
Case outside, painted inside	23 6
Case and white	21 6
Mahogany or Walnut Stained Brackets	23 6

SHARPE BROS. & CO.,

Telegraphic Address—
"SHARPE, SHADLINCOTE."

Patenters and Manufacturers of

London Office:
115, FLEET ST., E.C.

Closest Basins, Traps, Urinals, Cabinet Tops, Plug Basins, Commode Pans, &c.

OF EVERY DESCRIPTION IN WHITE, PRINTED, & CANE COLOUR,

SWADLINCOTE POTTERIES, Near Burton-on-Trent.



THE SEVERN CLOSET.

This Closet is what is usually termed a Wash-out, is made in one piece of Earthenware, and can be supplied with S or P Trap.

Cane and White	15-
Cane and Printed	18-
White or Ivory	19/-
White and Printed inside	21/-
White and Printed in and out	23/-



THE DERBY CLOSET.

This Closet is what is usually termed a Wash-out, is made in one piece of Earthenware, with raised Ornamentation, and can be supplied with S or P Trap.

White or Ivory	23/6
White and Printed inside	26/8



THE VICTOR.

Cane & White Basin & Cane & White Trap, 8/8	Printed, 10/-
White Basin	10/-
Printed, 12/-	

Traps with Ventilating Pipe, 8d. extra.

330

This Closet is what is usually termed a Wash-Out, but the outlet from basin (which in the ordinary Wash-Out is so great an eye sore) is not visible The Rim being Sharpe's Patent Rim, causes the Water to flush all parts of the basin thus securing a clean basin. This Closet can be used with any 2-gal Water Waste Preventer that gives a quick flush.

The Victoria Closet is what is usually termed a Wash-Out, and is made in one piece of Earthenware. If fixed with hinged seat, it combines a Water Closet, Slop Sink, and Urinal.



THE VICTORIA CLOSET.

Cane and White	16/8	White	20/0
Printed	20/0	White & Printed inside	23/4
White, and Printed inside and outside			25/8

L—SANITARY MANUFACTURES.

Tel. traffic Address—
"SHARPE, SWADLINCOTE."

SHARPE BROS. & CO.,
SWADLINCOTE POTTERIES, near Burton-on-Trent.

London Office—
119, FINE ST., E.C.

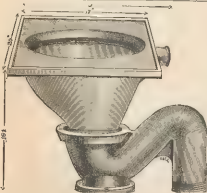


THE HOUSEHOLD CLOSET.

The Household Closet is specially designed to supply the demand for a superior Closet that will work satisfactorily in conjunction with Water Waste Preventers. The Rim being Sharpe's Patent Rim, causes the water to flush all parts of the basin, and the water standing in bottom of Closet prevents the outlet from soiling, thus securing a clean basin.

SHARPE BROTHERS & Co having manufactured this Closet for some time, can confidently recommend it to any one requiring a Closet to work in conjunction with Waste Preventers.

White Basin and White Trap	10/-
" Printed " " " " " " " " "	12/-
" Gold Lines " " " " " " " " "	14/6
Traps with Ventilating Pipe, 8d. extra.	



THE HOUSEHOLD CLOSET.

WITH FIXED SLOP TOP.

White Basin and White Trap	18/-
" Printed " " " " " " " " "	20/6
" Gold Lines " " " " " " " " "	22/6
Traps with Ventilating Pipe, 8d. extra.	

V V 2 2



THE ARISTON CLOSET.

(BEAN'S PATENT.)

The Ariston Closet has been specially designed for use as a Water Closet and Slop Sink combined.

The enlarged funnel-shaped basin admits of slops being emptied without splashing over, while at the same time it does not interfere with the use of the basin as an ordinary Hopper Water Closet.

Where this Closet is used separate Slop Sinks may be dispensed with; care being taken to provide in connection with the Closet a flushing cistern giving a rapid discharge of water.

White Basin and White Trap	25/4
" Printed " " " " " " " " "	26/8

The Basins with right hand or left hand side Inlet for Waste Pipe from Sink or Bath, 7s. extra.
Traps with Ventilating Pipe, 8d. extra.



THE MANOR CLOSET.

SHARPE'S PATENT FLUSHING RIM AND WEEPING HOLE.

This Closet is similar to No. 404, excepting the Trap is made with a socket, so that the joint may be connected on the outside, thus securing a perfect joint.

Cane and White Basin and Cane and White Trap	6/4
" Printed " " " " " " " " "	7/8
White Basin " " " " " " " " "	7/8
" Printed " " " " " " " " "	9/-

All White Trap, 7s. extra.

339

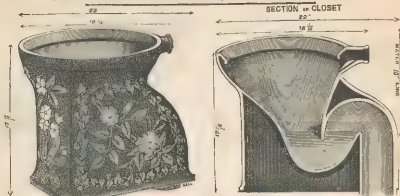
L—SANITARY MANUFACTURES.

Telegraphic Address—
"SHARPE, SWADLINCOTE."

SHARPE BROS. & CO.,

London Office:
115, FORD ST., E.C.4

SWADLINCOTE POTTERIES, near Burton-on-Trent.

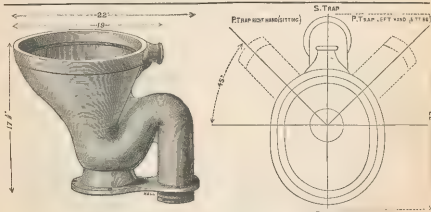


THE PRIMROSE CLOSET. (Registered) (No. 105177)

The Primrose Closet is made in one piece of Earthenware, and is what is usually termed a Wash-down or Hopper Closet. The Rim being Sharpe's Patent Rim, causes the water to flush all parts of the Basin, and the water standing in bottom of Closet (as shown above) prevents the outlet from soiling, thus securing a clean Basin.

The Closet is of an ornamental glazed pattern, and, if fixed with a hinged seat, combines a Water Closet, Slop-sink, and Urinal. This Closet can be supplied either in S or P Trap.

White outside and inside .. 28/8 Printed .. 30/- Majolica outside and white inside .. 32/- Printed .. 35/4



THE BURTON CLOSET.

The Burton Closet is made in one piece of Earthenware, and is designed to supply the demand for a self-contained Closet. The Rim being Sharpe's Patent Rim causes the water to flush all parts of the Basin, and the water standing in bottom of closet prevents the outlet from soiling, thus securing a clean Basin.

N.B.—This Closet will be supplied with S Trap, unless specially ordered P Trap. When ordering P Trap, state if required right-hand (sitting), or left-hand (sitting). See Plan above.

It is recommended that a three gallon Syphon Closet should be fixed to this Closet.

White 20/- White, printed .. 22/4 White, Two Gold Lines .. 28/8

339A

TRAPS WITH VENTILATING PIPE, 8d. EXTRA.

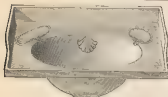
L-SANITARY MANUFACTURES.

Telegraphic Address—
SHARPE, SWADLINCOTE

SHARPE BROS. & CO.,

London Office
115, FINE STREET E.C.

SWADLINCOTE POTTERIES, near Burton-on-Trent.

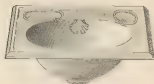


CABINET TOP.

Soap & Brush Tray Drained by Channels into Basin.

Size—25 in. x 17½ in. ; Oval Basin, 10½ in. x 12½ in.

No. 333	With Skirting White	.. 20/-	Marble	.. 28/6
.. 332	Without "	.. 17/8	"	.. 20/-

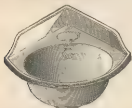


CABINET TOP.

Soap & Brush Tray Drained by Channels into Basin.

Size—22 in. x 16 in. ; Oval Basin, 17 in. x 10 in.

No. 334	Without Skirting, White	.. 14/8	Marble	.. 16/8
.. 335	With "	.. 16/-	"	.. 20/8

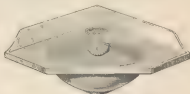


CABINET TOP.

SOAP DRAINED BY CHANNEL INTO BASIN.

Size—26½ in. x 23 in. ; Length of Sides, 19 in. ; Oval Basin, 17 in. x 14½ in.

No. 338	With Skirting White	.. 12/-	Marble	.. 14/-
.. 339	Without "	.. 10/-	"	.. 12/-



CABINET TOP.

SOAP DRAINED.

Size—26½ in. x 22½ in. ; Length of Sides, 21 in. ; Oval Basin, 16 in. x 12½ in.

No. 303	With Skirting, White	.. 17/6	Marble	.. 20/-
.. 302	Without "	.. 14/8	"	.. 16/8



No. 18. CRADLE URINAL.

(See 1 and 2 on p. 10)

Height, 22 in. ; Width, 14½ in.

Back to front, 14½ in.

White 12/-

Marble 14/-



BEDFORD URINAL.

No. 16 & 16a.

(With Sides 10" & 10½")

Height, 16 in. ; Width, 10 in.

Back to front, 10 in.

White 8/4 7/4

Marble 10/8 9/8

Flow, 1/2 cwt.



No. 82. LIPPED ANGLE

BEDFORD URINAL.

With Flushing rim & round

Height, 13 in. ; Width, 15 in.

Back to front, 17 in.

White 12/-

Marble 14/-



No. 203. LIPPED URINAL.

(Of at Back & 10 in. on p. 10)

Height, 19 in. ; Width, 15 in.

Back to front, 15 in.

White 20/-

Marble 24/-

339B

CHARLES WINN & CO.,

St. Thomas' Works, Granville Street, Birmingham.

LONDON—41, HOLBORN VIADUCT, E.C. LIVERPOOL—20, EXCHANGE ST., EAST. GLASGOW—30, RENFIELD ST.

WINN'S PATENT ACME SYPHON CISTERN.

PATENTED IN
GREAT BRITAIN.



PATENTED IN
THE UNITED STATES
OF AMERICA.

ACTION AS FOLLOWS:

No 1153.

By pulling the lever, the cap is raised and the siphon charged, when the lever may instantly be released, as the water will continue to run till the cistern is empty, the velocity of the flush increasing to the end of the discharge.

Any given quantity of water—usually Two Gallons—is used at each flush, *whether more or less*, thus economising and preventing waste of water, and at the same time ensuring an efficient flush of the closet.

Apart from the ball valve, as will be seen by the drawing, there are absolutely no valves, leathers, rubbers, or joints to wear away or get out of order, and all angles are rounded and cisterns tapered to prevent breakage by frost.

Price in strong Cast-iron, Painted, with Galvanised Chain and Handle, 1 Gal.	30/-	If all Galvanised, 28/-
Ditto, ditto, ditto, 1 1/2 "	20/-	ditto, 20/-
Ditto, ditto, ditto, 2 "	20/-	ditto, 20/-
Ditto, ditto, ditto, 2 1/2 "	22/-	ditto, 21/-
Ditto, ditto, ditto, 3 "	23/-	ditto, 21/-
Ditto, ditto, ditto, 4 "	26/-	ditto, 26/-
Ditto, ditto, ditto, 5 "	33/-	ditto, 46/-
Brackets for fixing Cisterns: in Cast-iron .. Painted 1/8; if Galvanised	2/6	per pair.
Ditto, ditto, Wrought-iron, .. 2/1	..	..
Patent India-rubber Connection from Pipe to Closet Basin	1/6	each
Extra, if Cistern have Brass Pull and Porcelain Handle	1/6	..
" " " Plated Chain and Ebony Handle	3/8	..
" " " Syphon Fittings for 1 1/2-in. Fall Pipe	2/6	..
" " " Ball Valves for Low Pressure	2/-	..

This flushing-box is intended for use with the various patterns of our Granville and Free Flushing Closet Pans now so much in vogue, and also with the usual common basin and trap, whether cottage or hopper shape; is approved and authorised for use by the Birmingham Water Works Authorities, also by the London and leading Provincial Companies, is now largely used in Barracks, Workhouses, and Her Majesty's Prisons throughout the country, and adopted by the leading Railway Companies, while more than FORTY THOUSAND HAVE BEEN SOLD to the general Trade, and a quantity exported to foreign countries.

Please state when ordering whether Ball Cocks are wanted for high or low pressure.

NOTE.—The above cistern is supplied to flush automatically, at same prices.

L—SANITARY MANUFACTURES.

CHARLES WINN & CO.,

St. Thomas' Works, Granville Street, Birmingham.

LONDON—41, HOLBORN VIADUCT, E.C. LIVERPOOL—20, EXCHANGE ST., EAST. GLASGOW—26, RENFIELD ST.

WINN'S IMPROVED ELASTIC-SEATED VALVE CLOSETS.

We believe these closets to be the very best apparatus extant for first-class dwellings, as they have been approved and specified by architects throughout the kingdom for many years, while at the present time their use is extending.

Though the various forms of washbasin closets now offered have their undoubted advantages, still the medical profession prefer this type of closet because the soil falls immediately into water of sufficient depth to entirely cover it, preventing stench and infection; moreover, when the handle of the closet is lifted the soil is the first thing which rises the water immediately following and in sufficient volume to entirely prevent any foul air from passing upwards into the room; in fact the action is similar to that of an injector, as fresh air is carried with the water into the soil pipe, the outlet of the basin being central, the water coming to it from all sides.

It should be noted that the inlets to these basins are straight, which causes the water to divide and flush each side of the basin equally, avoiding the whirling motion and consequent retention of the soil, which occurs when side arm basins are used; also that the flush of water is strongest where most needed, i.e., at the back of the basin, where the soil strikes—everyone will have noticed how defective all side outlet closets (of which we make none) are in this respect.

These closets are almost noiseless in action, substantially and very carefully made, all being tested before leaving our works, they are of the very best quality possible to manufacture, and as a guarantee we cast our name and the words "Best Quality" on each one, together with the pattern number as below, which kindly note.



No. 214.

No. 214.

- Special best quality elastic-seated Valve Closet,
as drawn, on strong iron frame, with brass
dish, polished and lacquered, porcelain grip,
and white flushing rim basin £ s d
2 15 0
- If complete with best round valve, ball lever,
three cranks, and copper wire 3 1 6
- If ornamental basin 2/- extra.
- If gold lined " 10/- "
- If made in Winn's "Commercial Silver,"
solid metal, all parts in sight 5/- "
- If nickel-plated 7/6 "
- If arranged with silvered glass valve 5/- "



No. 208

No. 208.

- Special best quality elastic-seated Valve Closet, fitted
with 1-inch self-closing supply valve and patent
brass regulator, adjustable to leave any desired
height of water in the basin, with polished and
lacquered brass dish, porcelain handle, and white
flushing rim basin £ s d
4 4 0
- If ornamental basin 2/- extra.
- If gold lined " 10/- "
- If with 1½-in. supply valve 4/- "
- If made in Winn's "Commercial Silver,"
solid metal, all parts in sight 5/- "
- If nickel plated 7 6 "
- If arranged with silvered glass valve ... 5/- "

L-SANITARY MANUFACTURES.

Telegraphic Address —
LUBBANKS LONDON

Telephone —
No 5199

BOWES SCOTT & WESTERN, BROADWAY CHAMBERS, 4 WESTMINSTER, LONDON. SOLE LICENSEES & MANUFACTURERS OF MR. ROGERS FIELD'S PATENTS.



GOLD MEDAL,
INTERNATIONAL HEALTH EXHIBITION, 1884.



ROGERS FIELD'S NEW "1889 PATENT" SELF-ACTING SIPHON

For building into Brick or Concrete Chambers, for periodically flushing Town Sewers, and
SELF-ACTING GALVANISED IRON FLUSHING CISTERN,

Patented with Rogers Field's New "1889 Patent" Annular Siphon, for Drains of Public Buildings and Private Mansions.

The NEW "1889 PATENT" is as much in advance
of Mr. FIELD'S old pattern (but still very success-
ful) Siphon, as that of all other Siphons.

Rogers Field's Patents are used, among other places, in the Residences of
H.R.H. the Prince of Wales. H.R.H. the Duke of Edinburgh.
H.R.H. the Duke of Connaught. H.R.H. the Duchess of Albany.

And also used and recommended by the
Local Government Board. Home Office (Prison Department).
War Office (Army Sanitary Com- Office of Works.
mission) London School Board



This NEWLY INVENTED SIPHON of Mr. FIELD'S
is undoubtedly the most perfect one—both theo-
retically and practically—that has yet been made.
It has no moving parts, is absolutely automatic,
and will start with the smallest dribble from a
tap or other supply

Some of its advantages over the old pattern Siphons are as follows:—
It is More Certain and Regular in its Action. More Readily Fixed.
More Easily Adapted to Special Circumstances.
More Economical of Water.

The new Siphon can be made much shorter than the old one to suit cases where the Drains are laid near the surface which was before impracticable, owing to the excessive length at which the old pattern Siphon would work.

Prevents dangerous Deposits in Drains, and the Salubrity to the evil effects of Sewer Gas.
FLUSHING CISTERNS made in Stone from 40 gallons to one gallon and upwards.

SIPHONS for building in Brick or Concrete Chambers may be had with TRAPPING BOXES complete, already fixed together so that they can be easily
connected with the Sewers or Drains.

ROGERS FIELD'S PATENT AUTOMATIC FLUSH TANK, or Fat and Grease Interceptor
For disposal of House Slops from Sinks, Sinks, &c., by Impulsion. Recommended by the Sanitary Authorities.

BOWES SCOTT & WESTERN'S PATENT SEWAGE LIMING MACHINE.
For treating Sewage with Lime at other Chemicals, which are replaced to the best possible state of sub-division. There is no waste, and the Grinding and Mixing
of the Precipitates is effected in one operation.

BOWES SCOTT & WESTERN'S PATENT AUTOMATIC, or PERFECT SPRINKLER, for watering Gardens with Sewer, &c., and as a Gyle Rouser for
Breweries. Its use in Chemical Works, Dye Works, Tanneries, Sewage Works, Bleach Works.

TOWN WATER & DRAIN FITTING. "CATCH-LOCK" SURFACE BOXES & IMPROVED SLUICE VALVES
TURBINES AND DIRECT-ACTING PUMPS. For Sewage Pumping

SHARP JONES & CO.'S BRICK CONCRETE TUBES (Patented) for Sewers. Are of great strength, and permit of a
perfectly Non-stop Sewer being made.

BOWES SCOTT & WESTERN'S PATENT SELF-CLEANSING TROUGH CLOSETS.

Suitable for Factories, Schools, Barracks, Hospitals, Prisons, Workhouses, Asylums, Workmen's and other large Public
Buildings. These Closets have been tested, fitted, and are very large number of London House, and several hundreds of
Country House, and are of the best quality, and do not require an attendant.

Readily fixed, with certainty of action. Absolutely Automatic

No Valves, Plugs, or Working Parts.

The Trough always receives a little water at the bottom, into which the excrement falls, and
this is automatically flushed out as soon as by a volume of water discharged from Rogers
Field's Patent Flushing Cistern (now fitted with his New "1889 Patent" Siphon).

By means of a small concrete circle of water from a tap, which can be regulated to fit,
the closets are rinsed perfectly as desired, the Trough is effectively flushed out whenever the
cistern becomes full.

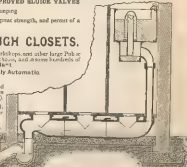
These Lavatories are supplied in Galvanized or Enamelled Earthenware, and also
as open Troughs in Cast Iron for sections with W.C.

When ordering, state the centre required, i.e., the distance from centre to centre
of vent holes. In arranging the W.C.'s more space should be allowed for the and
one as to take the sink and toilet.

TROUGH URINALS on the same principle.

BOWES SCOTT & WESTERN are the sole Licensees of these Patents, and all inquiries should be addressed to them direct.

Special Quotations given for Sanitary Appliances and Town Water Fittings, &c.



❖ Sanitary Earthenware ❖

THOMAS W. TWYFORD

Cliffe Vale Pottery,

—❖— HANLEY, Staffordshire. —❖—

SPECIALITIES.

UNITAS

DELUGE

NATIONAL

ALLIANCE

TORNADO

CROWN

W. C. Basins, with Cisterns, Seats, Brackets, &c

CARDINAL" & "IDEAL" Lavatory Basins, Complete

WILLIAMS & COY. LTD. HANLEY

THE Perfection of Cleanliness
Utility and Simplicity.



No. 4 Shewing Slop Top.

Twyford's UNITAS

Combining
Water Closet
Basin
Urinal &
Slop Sink



The only Basin of this type
with Perfect Formation of Trap.



No. 1 Raised Ornamentation,
"Elegant" Pattern. White or any Ware.



No. 2 Dotted Pattern,
"Elegant" Pattern. White or any Ware.



No. 3 Strong Line Clay,
"Elegant" Pattern. White or any Ware.

TWYFORD'S

PRICES OF
"UNITAS" W. C. Basin, with
Patent After-flush Chamber.

No.		White	Ivory	Paper Boxes	
				White	Ivory
1	Raised Ornamentation, Florentine Pattern.. .. .	42 -	49 6	7	7 6
2	Plain without any ornamentation.. .. .	38 -	44 6	6 6	7 -
3	Strong Fireclay, white enamelled inside	32/-	..	6	..
* 4	Raised Ornamentation, Florentine Pattern with Slop Top	72,	79 6	7 -	7 6
5	Raised Ornamentation, Oak Pattern	42/-	49 6	7/-	7 6
6	Marbled on White Ware	53 -	..	8 -	..
7	Raised Ornamentation, Celadon Ware	77 1/2	Boxes, 12/6	..	..
8	Printed Blue, Dahlia Pattern, on White Ware	58 -	..	8	..
9	Ditto Brown, Florentine Pattern, on Ivory Ware	..	64 5	..	8/6
10	Ditto Blue, ditto ditto White ditto	58	..	8 -	..
11	Ditto ditto ditto ditto and traced in gold on White Ware	15 1	..	17 6	..
12	Raised Ornamentation, Florentine Pattern, traced in gold	13 6	14 1	11	16 6
13	Raised Ornamentation, Oak Pattern, colored	69 6	77 -	11 6	12 6
14	Raised Ornamentation, Florentine Pattern, as No. 12, but traced in blue instead of gold	77 6	85 -	12 -	13

*No 4 is No. 1 with Slop Top. Except No. 3 all other numbers are made with Slop Top at 30 - extra.



SEATS WITHOUT FLAP.

Durston Oak, Walnut or Mahogany, Best Quality, 15/-
Walnut or Mahogany only, Ordinary, 14/-
Plain White Wood, 12/-

Unless ordered to contrary, best quality is always sent.

SEATS WITH HINGED FLAP.

Durston Oak, Walnut or Mahogany, Best Quality, 15/-
Walnut or Mahogany only, Ordinary, 14/-
Plain White Wood, 12/-

Unless ordered to contrary, best quality is always sent.

SELF-LIFTING SEAT WITHOUT FLAP.

with Levers and Weighs 12/- recommended for
Hotels, Public Houses, &c.

Price including Brass Levers and Iron Weighs -
Durston Oak, Walnut or Mahogany Plain White Wood

15/- 38/- 25/-

CISTERN BRACKETS AND PULLS.

No. 14	PRINTED GALVANIZED	
2 Oaks.	1/6	2/6 per pair
2 "	4/6	3/6 "
2 Galv. with part	2/6	3/6 "
3 " "	3/6	4/6 "

No. 17	No. 18. Pedestal Pull and Ivory Handle	
1/6	2/9	13/6

SEAT BRACKETS.

No. 5.	PRINTED GALVANIZED	
Sent Bracket	6/-	8/6
No. 6. "	Pedestal	9/-
No. 7. "	Brackets for Cisterns with Slop Top	5/-
No. 8. "	Do. Pedestal	9/-

CISTERNS.

No. 11. NATIONAL PATENT NOBLESS CISTERN.

2 Gallons	PRINTED GALVANIZED	27/-
3 "	23/-	31/-

Including Ballcock and Overflow Nipple.

No. 11. NATIONAL PATENT NOBLESS CISTERN WITH PARTITION

2 Gallons	PRINTED GALVANIZED	27/-
3 "	23/-	31/-

Including Ballcock, &c.

No. 12. BRITISH PATENT NOBLESS CISTERN.

2 Gallons	PRINTED GALVANIZED	27/-
3 "	23/-	31/-

Including Ballcock, &c.

100,000	THE	NOW IN USE.	
"NATIONAL" PATENT SIDE OUTLET CLOSET & TRAP.			
			
PRICES: 6			
and Trap (in One Piece), with or without Ventilator on Trap - White, 30 -; Blue, 38-; Printed Flown Colours, 42- 1-6 p (in Two pieces), White Basin and Trap, 10/3; Blue Basin and Trap, 24 -; Printed Flown Colours and Trap, 30/- WITH BASIN VENTILATOR, 1/6 EXTRA.			
ALLIANCE FRONT OUTLET CLOSET AND TRAP.		CROWN SANITARY CLOSET, BASIN & TRAP.	
			
Simple Cleanly Effective		Strong Cheap Simple	
PRICES: 10/-, 12/-, 14/-, 16/-, 18/-, 20/-, 22/-, 24/-, 26/-, 28/-, 30/-, 32/-, 34/-, 36/-, 38/-, 40/-, 42/-, 44/-, 46/-, 48/-, 50/-, 52/-, 54/-, 56/-, 58/-, 60/-, 62/-, 64/-, 66/-, 68/-, 70/-, 72/-, 74/-, 76/-, 78/-, 80/-, 82/-, 84/-, 86/-, 88/-, 90/-, 92/-, 94/-, 96/-, 98/-, 100/-		PRICES: Fire Clay Basin and Trap .. Blue Printed Basin and Trap.. White Basin and Cane Trap .. White and Blue Printed Basin and Cane Trap ..	

"CARDINAL" THE Lavatory Basin, "Patent"

The most perfect Sanitary Lavatory Basin yet introduced.

The fittings are all in sight. The entire overflow and fittings being placed in a recess formed inside the Basin, can be easily removed and cleansed by any unskilled person.

EARTHENWARE

unless specially ordered Brass



No. 90 OBLONG.

29" x 24", Basin 21 1/2" x 17" - 93/- Complete

26 1/2" x 21 1/2" " 21" x 15" - 71/6 "

22" x 18" " 17" x 12" - 60/- "

Medium and Small sizes

are also made with
back and sides.

No. 90—OBLONG.

and Overflow, and 2 Supply Cocks.

"IDEAL" THE Lavatory Basin, "Patent"



No. 50—OBLONG

With "Ideal" Patent Overflow and Waste, Brass Waste Connection, and Rubber Plug with Chain.

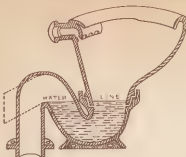
LARGE. 25 1/2" x 20 1/2" in. 62/6
SMALL. 22" x 18" in. 37/6



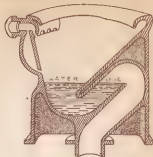
No. 70—OBLONG with Facia.

"Ideal" Patent Overflow and Waste, Brass Waste Connection. Rubber Plug with Chain, and Wall Brackets with Patent Fastenings.

LARGE. 28 1/2" x 20 1/2" in. 90/-
SMALL. 24" x 18" in. 75/-



SECTION—2 PIECES.

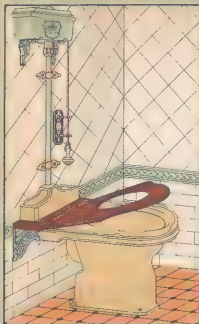


SECTION—5 TRAP—1 PIECE.

TWYFORD'S "DELUGE" Wash Down Closet Basin.

PRICES OF "DELUGES," with Paper Boxes, including Patent After-flush Chamber—In One Piece.		White	Ivory	Paper Boxes	
				White	Ivory
1	Raised Ornamentation Florentine Pattern	42 -	40 6	7/-	7 6
2	Plain, without any ornamentation	38/-	44/6	6 6	7 1
3	Strong Fireclay, white enameled inside	38/-	79 6	8	7 6
4	Raised Ornamentation, Florentine Pattern, with Slop Top	77 1/2	Boards, 12/6		
5	Marbled, on White Ware	58 -		8 -	
6	Raised Ornamentation, Celadon Ware				
7	Printed, Blue Delft Pattern, on White Ware	58 -	64/6	8 -	8 6
8	Printed, Blue Delft Pattern, on White Ware				
9	Ditto Beaux Florentine Pattern, on Ivory Ware	58/-		8 -	
10	Ditto Blue ditto ditto White ditto	15/-		17/6	
11	Ditto ditto ditto and traced in gold on White Ware	13 6	144	15	16 6
12	Raised Ornamentation, Florentine Pattern, traced in gold	77 0	85 -	13 -	13 -
13	Raised Ornamentation, Florentine Pattern, traced in blue				
14					
Basins Printed inside, 6/- extra. Flown Colours, 12/- extra.					
Basins made without after-flush, 2/- each less.					
* The No. 4 is No. 1 with Slop Top. Excepting No. 3 all other numbers are made with Slop Top, at 20/- extra.					
THE "DELUGE" IN TWO PIECES WITHOUT AFTER FLUSH		Lane	Cove and Panel	Alt. White	White and Ivory
BASINS MADE WITH AFTER-FLUSH 1/- EACH EXTRA.					
For either Earthenware or Lead Trap Basin only		8/-	9/-	9/-	10/6
Earthenware Trap for Basin only		4		5/-	
For either Earthenware or Lead Trap, Basin only, with flat slop top				35 -	40/-
Earthenware Trap for Basin only		4/-		5/-	

Simple Cleanly Effective



No. 4. Shearing Slope Trap.

TWYFORD'S DELUGE

Wash Down
Closet Basins,

Combining Water Closet, Basin,
Urinal & Slop Sink.

Made in One or Two pieces with
S or P Trap.



No. 1.
Raised Ornamentation, "Florentine"
Pattern, White or Ivory Ware.



No. 2.
Deluge Basin and Trap S or P
in 2 pieces.



No. 3.
Plain Ivory or White Ware.

"TORNADO"

FROM
50/-
COMPLETE
INCLUDING
Seat & Cistern



FROM
50/-
COMPLETE
INCLUDING
Seat & Cistern

PRICES

					£	s.	d.
Fireclay Basin, No. 3, with white wood seat, "Tornado" cistern and brackets, painted, with brass chain pull					2	10	0
White Basin, No. 2, ditto ditto ditto ditto					2	15	0
With mahogany seat					0	3	0
With galvanized iron flushing pipe					0	12	0
With lead flushing pipe					0	9	0
With patent and a rubber connection, 1 1/4"					0	1	6
With galvanized cistern and brackets instead of painted					0	5	0

		Prices of Basins only:-													
No. 2.	Plain White, S. or P. Trap	..	..	..	..	..	..	..	..	..	..	each	1	5	0
	Ivory ditto	..	..	..	..	..	..	..	..	..	..	do.	1	7	6
No. 3.	Strong Fireclay ditto White enamelled inside	..	..	..	..	..	..	..	..	..	..	do.	1	0	0
No. 4.	Printed Virginia Pattern, Blue outside	..	..	..	..	..	..	..	..	..	..	do.	1	12	6
No. 5.	Printed Convolverus Pattern, Flown Colours outside	..	..	..	..	..	..	..	..	..	..	do.	1	16	0
Basins Printed inside only, 4/6 each. Flown Colours, 9/- each extra.															

Seat for above	each	Mahogany 14/-	White Wood 17/-
"Tornado" Cistern for above	do.	Painted 17/6	Galvanized 25/6
Cistern Brackets	per pair	1/6	2/6

The "Tornado" is guaranteed to be perfectly efficient when fixed in connection with the "Tornado" 2 gallon Flushing Cistern.

L—SANITARY MANUFACTURES.

HARPER TWELVETREES, LAUNDRY
ENGINEER,

8, City Road, London, E.C., & Imperial Ironworks, Feniscowles, Lancs.

STEAM LAUNDRIES, PUBLIC INSTITUTIONS, MANSIONS, STEAMSHIPS, &c.,
Fitted in the most perfect and satisfactory manner by contract. ESTIMATES FREE.

HARPER TWELVETREES has special facilities for fitting up Laundries, Large or Small, in the most Approved, Economical, and Efficient manner, and on the most Modern Principles.

SPECIALTIES FROM HARPER TWELVETREES' CATALOGUE.

UNDERDRIVEN HYDRO



This is a very convenient pattern, safe to the user and occupying little space. The carburetor counter-program, so great an objective in the ordinary form of Under-Driven Hydro, is scarcely dispensed with. The counter gear shown in the illustration is fixed overhead.

16 inch Cage	445	Counter-Gear	£57
32 " "	52	32 inch Cage	62

"WILLIAMSON" PATTERN WASHER.
(FOR HAND OR STEAM POWER.)



	Max. Power	Stim. Power
3 ft. 6 in., no shirt	20 0	414 0
6 6 "	9 10	15 0
6 6 "	22 2	12 2

STEAM BOILERS.



VERTICAL.

Horse Power	1	2	3	212
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10

CORNISH

Horse	Power	250
4		160
5	1	75
6	2	85
7	3	105
8	4	120
9	5	140

"DECOUDUN" IRONER.
HEATED BY STEAM, GAS, or FLUORAC



PRICE		1 lb. 10	2 lb. 10
5 1/2 inch	1 lb. 10	30	40
5 1/2 inch	2 lb. 10	40	50
5 1/2 inch	3 lb. 10	50	60
5 1/2 inch	4 lb. 10	60	70
5 1/2 inch	5 lb. 10	70	80

Further particulars on application
HAND PUMPS,

HAND PUMPS.

These P-logs are the most convenient hoses possible for a laundry, and can be used for moving water from wells, pumping hot water from coppers to washing machines, filling and emptying casks, running water, etc. They can be fixed to a wall or plank by anyone in a few minutes, and may be used with Lead or Rubber Pipe. Being double-acting, they grow instantly, and even get out of order. The parts are all interchangeable.



No. Gallons per M. rate.	Size of Pipe.	PRICE
2	4	$\frac{3}{8}$ inch
2	6	1 inch
2	80	$\frac{1}{4}$ inch
4	30	1 inch

Larger Sizes made for Hand or Motor Power

⁴ Larger 8 pin cable for Hand or Smart Power

STEAM ENGINES.



VERTICAL.

3	Monks	Powers	812
7	1	1	15
2	1	1	27
4	1	1	24
6	1	1	45
2	1	1	60

HORIZONTAL.

°	Exit Power	dB
1	0	27
4	0	30
6	0	45
8	0	60
30	1	70

"VILLA" WASHER.

"BOW TOP" PATTERN, with Wood Wringing
and Mangling Rollers.



						f	s	d
Small size, 6 Shirts,	50	each Rollers	.			5	19	6
General .. 2	32	" "	"			8	17	6
School .. 10	5	" "	"			7	12	6
Laundering .. 25	25	" "	"			8	18	6

Beams Top, 5/0 extra

x	y	d
5	10	6
6	11	6
7	12	6
8	13	6

L-SANITARY MANUFACTURES.

WINSER & CO., SANITARY ENGINEERS, 52, BUCKINGHAM PALACE RD., LONDON, S.W.

WINSER'S CHANNEL PIPES AND BENDS.

These Bends are specially designed to remedy the defects which are found by practical experience to exist in those hitherto in use. The outside is carried higher than the inner, and curved over (see section), so that the sewage, as it rises in passing round the bend is concentrated and folded over like a wave, and

(REGISTERED)
Crown Glassed Internally.



turned in the direction of the cut-go. They are all made with sockets, and of the best cream enameled ware. They are thus exceedingly strong, and are non-corrosive. Having a broad flat rebated base, they are easily fixed, and it is almost impossible to set them out of their proper level.

STRAIGHT CHANNELS.

2 ft. 0 in.	4 in.	6 in.	9 in.
2 ft. 6 in. .. ..	.. ..	2 .. 2 1/2 ..	4 .. each.
3 ft. 0 in. .. ..	.. ..	3 1/2 .. 4 ..	5 1/2 ..



4 in. 3 1/2 in. 5 1/2 in. each.

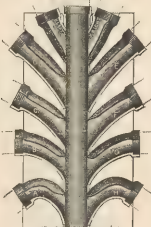


4 in. 3 1/2 in. 5 1/2 in. each.

Y-JUNCTION CHANNELS.



2 ft.	4
2 ft. 6 in.	4 1/2
3 ft.	5 1/2



A, B, C, D, E, F, G, H, K, WINSER'S CHANNEL BENDS. 4 in. 2 1/2 in. 6 in. 3 1/2 in.

TAPER CHANNELS.

(With Sockets on either end)



6 to 4 in. 9 to 6 in.	
2 ft. 0 in. 3 1/2	4 1/2 each
2 ft. 6 in. 3 3/4	5 1/2 "
3 ft. 0 in. 4 1/2	6 1/2 "

OVER 3,000

"WINSER"

TRAPS

HAVE BEEN SOLD.



Scale 7" to 1 foot

WINSER'S INTERCEPTING SEWER TRAP.

PRICES.

2 1/2 in.	50'
3 in.	25'
6 in.	15'
4 in.	8
4 in. Inlet with 6 in. outlet	9, 6

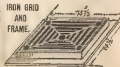
REGISTERED.

A Outlet to Sewer
B Half Channel Pipe, Inlet from House.
C Dip of Trap 2 1/2 in.
D 2 1/2 in. for clearing the Drain beyond the Trap, and is provided with Movable Cap and Standford Joint.



THIS TRAP HAS A CASCADE OF 3 INCHES.

GALVANIZED STEP IRONS. 1/2 each.

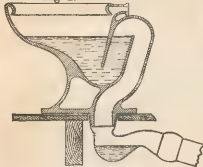


Painted, 5/- Galvanised, 7/-

WINSER & CO., SANITARY ENGINEERS, 52, BUCKINGHAM PALACE RD., LONDON, S.W.

'DECECO' SYPHON CLOSET

Fig. 1.



READY FOR USE.

This Closet possesses considerable advantages over any other yet invented. It shows a positive seal of 4 ins. and a depth of water in the basin of 7 ins. The Trap is so tight, so that any obstruction that may at any time occur must necessarily be within view and within easy reach. The Flushing is so complete that the whole Basin is thoroughly cleaned each time.

ONE "DECECO" W.C., complete, with Lead Weir, Brass Bottoms, Lead lined after Flush Cistern, board and brackets, brass rod or chain, and handle. Brass, painted or enameled & rubber cone. 06. n. n.

4 Dapco ¹ W.C., Lead wear, & brass buttons, whiteware	3	5	0
--	---	---	---

40	10	20	30	printed blue inside	3	15	0
41	10	20	30	printed gold inside	4	0	0

Patent Lead Lined Syphon Flushing Closets, with

After Flush	"	"	"	"	"	"	\$	0
4.000 Flush Chamber	for use when our Patent After							

Flash Casters are not used 0 15 6

[illegible]

Stout Mahogany or Walnut Seat, hinged to lift up. . . 6 7 8

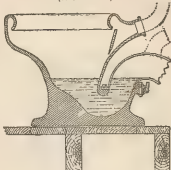
and skinning	..	..	..	..	..	..	1	0	0
--------------	----	----	----	----	----	----	---	---	---

Cast Iron Brackets, painted, per pair	0	7	0
galvanized nut case	0	12	0

galvanizaci, par par

'PURO' WATER CLOSET.

(PROTECTED)



THIS CLOSET overcomes the objectionable and dangerous connection between the earthen trap and soil pipe; the connection is under the Water Line, and being submerged it must be absolutely tight against the leakage of sewer gas.

THE OUTGO (supplied either in lead or stoneware, either P or S), can be turned in any direction. The P form will command itself as having the joints above the floor line, and would be especially useful in houses of fireproof construction.

ONE "PURE" W.C. complete with Lead or Earthenware P Bend, Iron Collar, 4 Bolts, Lead Lined

Flushing Cistern, board and brackets, brass rod or chain, and handle (brass, rosewood, or ebony), and rubber cone	3	17	6
---	---	----	---

"Puro" W.C. with Lead or Earthenware P Bend

Iron Collar and 4 Bolts	1 10 0
With Lead or Earthenware \$ Head extra	0 3 6

Coloured Inside and Outside	extra	0 10 0
-------------------------------------	-------	--------

..	Inside only	..	..	..	..	extra	0	5	0
----	-------------	----	----	----	----	-------	---	---	---

Transmuted Lead Lined Synphon Flushing Clusters . . . 1 15 0

Improved Deckboard Synchro Running Castors	..	1	15	9	
Board and Brackets	..	..	..	..	0 2 6

Brass chain or rod with pull down Handle, either brass,
steel or wood.

abody, or rosewood	0	7	8
Slon Toss, in whiteware	0	10	6

IMPROVED IRON INSPECTION COVERS AND FRAMES.

No. 1.



SIZES.	PAINTED			GALVANIZED.
	A.	B.	C.	
16 inches square ..	12/-	19/6	24/-	5/6 extra.
18 inches square ..	14/-	21/6	27/-	6/6 "
1 ft. 10 in. x 1 ft. 4 in. ..	15/6	22/6	30/-	7/6 "
2 ft. 5 in. x 1 ft. 8 in. ..	20/-	27/6	35/-	10/- "
2 ft. 7 in. x 1 ft. 10 in. ..	25/6	32/6	40/-	10/- "
3 ft. 6 in. x 2 ft. 6 in. ..	45/6	53/6	63/-	21/- "

The Clear Opening is 3 inches less all round.

- (A) The original form, with groove to be filled in with oil, or glycerine, &c.
- (B) The same form, but with 4 gun metal bolts to fasten cover down and prevent same being opened.
- (C) The same as "B," for fixing inside buildings but with our asbestos packing, by which an absolute seal is obtained.

These Frames are made in Two Sections, Nos. 1 and 2. No. 1 is the section generally used for concrete and similar floors, and No 2 for stone curbs. When ordering it is necessary to state clearly the section required, otherwise it will be understood that it is immaterial which section is supplied.

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Telegraphic Address:
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SANITARY POTTERS, SWADLINCOTE, near Burton-on-Trent. Established, 1780.

AWARD OF MERIT at the International Medical and Sanitary Exhibition, South Kensington, 1881 being the highest award for this class of Closet.

THE PATENT "WASH OUT" CLOSET.

None are genuine without this. THE TRADE MARK, "WASH OUT" is printed inside every Basin.

This engraving represents the basin fixed on the trap, and is 17 inches high. The trap is made in both S & P shapes and is screw in the floor



Cases, white inside, 14" Do printed, 16" White 18" each Printed, 18" each Printed, 22" each, Flown Colours, 22" each, Traps with Out Closet Basins 3/6 each.

This engraving represents the basin seated on the stand. By this arrangement the trap can be turned in any direction to suit the position of the soil pipe. It stands 17 inches high. Both Trap and Stand are made to screw to the floor.



Cases, white inside, 16" Do Printed, 18" White, 20" each Printed, 23" each Printed Flown Colours, 24" each Stands only, 3/6 each.

Every basin has printed on it the TRADE MARK, as shown in this section.

This is a section of No. 200, showing the basin fixed with supply at the side. The water in the bottom to receive the soil is 1 1/2 inches deep and 8 inches by 10 inches across thus giving ample water for the soil to fall into.



Trap P—No. 203.



Trap S—No. 202.



The ventilation of the traps for these closets is provided for (pipes so ordered) by a pipe of 2 1/2 inches diameter (larger sizes made to order), as shown in these engravings; this opening can also be used as a means of unstoppering the trap, should it ever need it. The trap is made to trap fully 1 1/2 inches, and thus an efficient trap is secured.

The difference between this closet and others with water in the bottom to receive the soil, is that in them you depend upon the water floating the soil and paper out of the basin, or have a stopcock valve or plug placed between the basin and the trap to retain the water in the basin. The objection to the former is that the soil, &c., is frequently left in the basin. By the "Wash Out" arrangement both these evils are avoided. The water is so directed in entering the basin that it makes at once for the outlet, driving before it the soil and paper out of the basin and through the trap, leaving pure water to fill the basin. There is no metal or valves of any kind exposed to the action of the soil. This closet is important to have at least 1 1/2 inch service. It can be fixed in the place of any ordinary closet. This closet is designed to meet the requirements of the 2 gallon service.

Extract from the *Architect* of Jan 24th, 1877 page 77: "How to Drain a House" from a paper by T. Mellard Reade, Esq., F.R.I.B.A., C.E., read before the Liverpool Architectural Society:—

"I consider the pan closet objectionable, especially since the compulsory introduction of the 2 gallon regulating fixture has increased the difficulty of getting the soil to fill the pan. The 'Container' is usually a reservoir called with 2 1/2, held by its pan holding the water on the basin. A basin with a trap at the side or back, called a 'Wash Out' basin, is a far better apparatus."

"Improvement on Sanitary Condition of Houses," from a paper by J. Corbett, Esq., read before the Social Science Congress, Manchester, 1875:—

"We replace defective Closet Appliances by the simple 'Wash out Closet,' which is of white earthenware, without any valve, and so perfectly self-cleansing as to require very little attention."

Extract from a letter by "M. O. H." (a Medical Officer of Health), *Daily Telegraph*, dated September, 1880:—
"The Local Government Board forbids the use of the pan closets . . . they may be easily replaced by one of the 'Wash Out Closet' Basins."

Extract from a Lecture by W. Eassie, Esq., C.E., at the International Health Exhibition, July 28th, 1884.
"A Cleanly Wash-out Flushing Rise Basin, in connection with a small Flushing Tank overhead, which merely require a touch of the depending chain and ring to liberate the whole contents."

When ordering, please give Name and Number of Engraving.

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Trade Mark, "Wash Out," is printed inside every Basin.



PRICES.

Cane, White inside,
12/- each.
Do, Printed
13/6 each.
White,
14/- each.
Printed,
16/- each.
Printed,
Flown Colours,
17/- each.
Traps without
Closet Basins,
3/- each.



PRICES.

Cane,
White inside,
13/6 each.
Do Printed,
14/- each.
White,
14/6 each.
Printed,
16/6 each.
Printed,
Flown Colours,
17/6 each.
Traps without
Closet Basins,
3/6 each.

This is the same Closet as No. 250, but the Trap has a Pipe for Ventilation.

The Traps are all Cane Colour outside, and white inside, and are made in S and P shapes.

Closet must have at least 1 1/2 inches supply pipe.

BY HAVING THE CLOSET SEAT HINGED SO AS TO LIFT UP, THIS CLOSET CAN BE USED AS A SLOP RECEIVER AND URINAL.

IT CAN BE FIXED IN THE PLACE OF ANY ORDINARY CLOSET.

ANOTHER PATTERN WITH FRONT OUTLET.

Patent "Wash Out." No. 220.

Cane, White Inside .. 13/-
Cane, Blue inside .. 15/6
White 15/-
Blue Printed 16/6
Flown do. 20/0



The Traps are made
S and P shapes.

Made also with Vent
pipes at 6d. each extra.

When ordering, please give Name and Number of Engraving.

Trade Mark, "Wash Out," inside, none are genuine without this.

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THE PATENT "WASH OUT" CLOSET—in One Piece of Pottery.



No. 210.

The Closets are made of the very best white earthenware, and most carefully finished in every respect.



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WHITE, 30/- each.
BLUE PRINTED, 36/-.
FLOWN PRINTED, 44/-.

**Patent "Wash Out" Closet, Urinal, and Slop Sink
(COMBINED)**

THIS CLOSET IS SPECIALLY DESIGNED TO BE FIXED WITHOUT WOOD CASING
AND IS MADE IN ONE PIECE OF EARTHENWARE.



No. 231.



No. 232.

White.. .. 45/- each
Ivory 45/- "
Printed Inside 51/- "
Printed Inside
and Outside 55/- "
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extra.

Coloured Decoration each
" Inside only.. 70/-
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Inside and Outside 75/-
Peach Colour Outside,
Ivory or White Inside 60/-

The Closet No. 231 is made perfectly plain and smooth, so that dirt shall have no opportunity to lodge upon it anywhere.

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White.. .. 6/6 each.

Ivory 6/6 "

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Printed 8/- each.

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For Basins, 12 in., 14 in., 16 in., and 18 in.

	Inches.	White.
To fit Tip-up Basin	12	12½
"	14	14½
"	16	22½
"	18	30½

No. 101. Improved Receiver.



	Inches.	White.
To fit Tip-up Basin ..	12	14½
"	14	15½
"	16	24½
"	18	30½

No. 107. Tip-up Basin.



Inches.	White.	Marble.
12	5½	6½
14	6½	7½
16	10½	12½
18	16½	20½

No. 108. Tip-up Basin.

With round holes for pivot bosses.



Inches.	White.	Marble.
12	5½	6½
14	6½	7½
16	10½	12½
18	16½	20½

CABINET STANDS.

No. 155.

OVAL BASIN



Inches.
Size of Top 26 by 18 ..
Basin .. 17½ .. 13½

Price.
White .. 23/-
Marble .. 26/-

No. 160.

Size of Top 26 by 18
Basin .. 17½ .. 13½



Price.
White .. 20/-
Marble .. 24/-

No. 504. Drainer and Slops Receiver.
No. 506. Drainer and Wash Up Sink



Inches.
Size of Top .. 24 by 14
Depth of Basin .. 10½
Diameter of Top of Basin .. 17½
Diameter Outlet .. 8½
White, 35/-
Marble, 40/-

Traps No. 437 and 441, fit the outlet of pipe.

SINKS.

No. 505. Drainer and Slops Receiver.
No. 507. Do. and Wash Up Sink.



To fit Trap
44½ 44½
White, 40/-
Marble, 45/-
Basin also 20 20.

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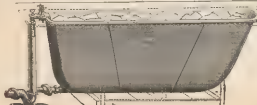


FIG. 4.

2. TYLOR & SONS' "COMPOUND" CISTERN, URINAL, AND SLOP SINK, COMPLETE WITH PATENT SYPHON FLUSHING CISTERN, &c. IRON WORK GALVANIZED. RANDATORY SEAT TO KIFT NO DOWN PIPE INCLUDED IN PRICE.

White Enamel	£5 4 0
Decorated in Colours	5 14 0
White and Gold	9 1 0
Seat to Sling	extra 0 7 0
Fig. 4, drain plate white enamel, polished iron work, dual seat to left	8 11 8
Seat to Sling	extra 0 7 0

BEAN'S PATENT CISTERN AND OTHER VARIETIES IN CATALOGUE.



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FIG. 5.

J. TYLOR & SONS' SPECIAL PATENT VALVE CLOSET. REVERSIBLE TRAP ABOVE FLOOR-LINE WITH OVER- FLOW BASIN, LONG PATENT REGULATOR AFTER FLUSH VALVE UNDER SEAT.

With Brass Oak Dish, and White Base	£5 6 0
Dish, Nickel Plated, seatings, handsome pattern	0 15 0
Base, silvered plate bottom plate	0 15 0
Fig. 5, cistern with Brass Oak Dish and White Base, and 4 traps of oval or diamond shape over-flow of brass pattern	0 17 0
Dish, Nickel Plated, seatings, handsome pattern	4 2 0

SEE CATALOGUE FOR OTHER VALVE CLOSETS.



J. TYLOR & SONS' ORBINO WHITE EARTHENWARE LAVATORY (FIG. 1), WITH 2 IN. NICKEL PLATED SCREW DOWN VALVES (FIG. 6), AND QUICK WASTE VALVE (FIG. 7). 40 lbs. 3d.



DITTO DITTO, ANGULAR, 40 lbs. 3d.



FIG. 11.

J. TYLOR & SONS' SYPHON URINAL BASIN: 1. PATENT SYPHON FLUSHING CISTERN, INLET, CONNECTION, EARTHENWARE WASTE PIPE, NO DOWN PIPE £2 10s. 6d.

OTHER VARIETIES IN CATALOGUE.



FIG. 6.

GUN METAL QUARTER TURN SCREW DOWN VALVE, BRONZE HANDLE, HOT OR COLD. 3 in. 6/8. 3 in. 8/8. 1 1/2 in. 1/2.

FIG. 12.

J. TYLOR & SONS' NEW SHAPE COPPER BATH, WITH SPOT PLATE IN VALVES, 4 IN CONCEALED OVER- FLOW AND QUICK WASTE.

Nickel Plated .. 3 ft. 3 in. .. 3 ft. 6 in. .. 6 ft.	
Mount, same .. 11 11 0 .. 10 16 0 .. 14 8 0	
Wood Casing .. 0 6 0 .. 0 5 0 .. 0 8 8	
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THE COMPLETE CATALOGUE.

Section M. WALL AND CEILING COVERINGS.

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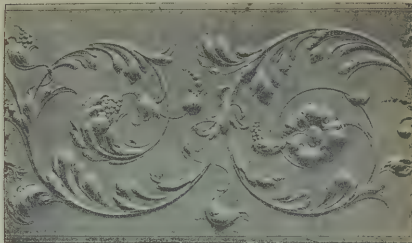
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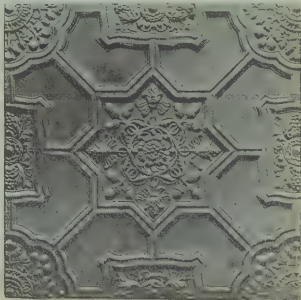


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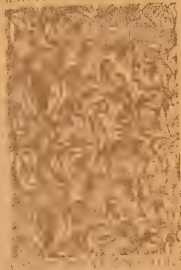
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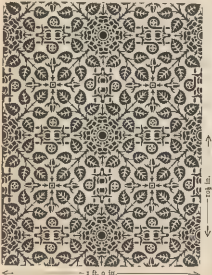
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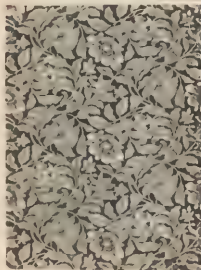


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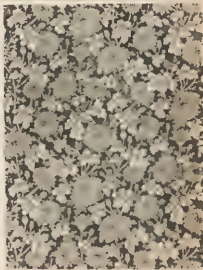


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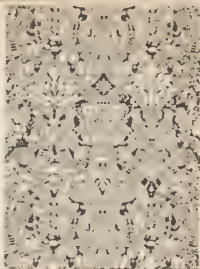
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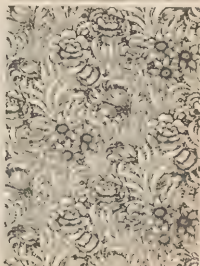
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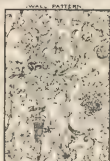
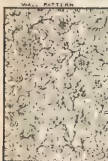
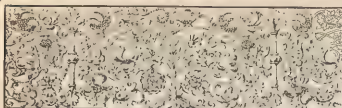
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ARE entirely "hand-made," thus producing the soft and graceful outlines in the embossing unattainable by any machine-made Papers.

For New Designs for 1890 apply to the Main Warehouse:
49/51, ST. MARY AXE,
LONDON, E.C.

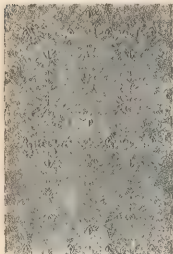
ALSO TO

46, Gordon Street, Glasgow; 19, East 21st Street, New York, U.S.A.;
& No. 28, Yokohama, Japan.

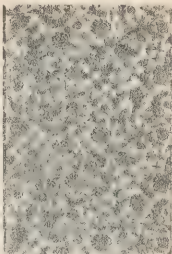
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ROTTMANN, STROME & CO.'S EMBOSSED LEATHER PAPER HANGINGS.



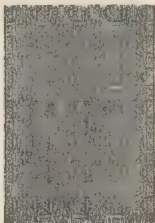
No. 3808. 36 inches wide.



No. 5242. 36 inches wide.



No. 5878 36 inches wide.



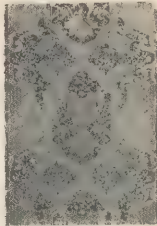
No. 4398. 36 inches wide

WAREHOUSES and SHOWROOMS
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 46, Gordon Street, Glasgow.
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ROTTMANN, STROME & CO.'S EMBOSSED LEATHER PAPER HANGINGS.



No. 5188. 36 inches wide



No. 3681. 36 inches wide



No. 4488. 36 inches wide

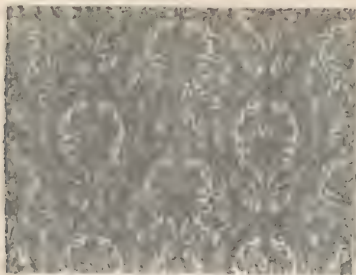


No. 6060. 35 inches wide.

WAREHOUSES and SHOWROOMS (49-51, St. Mary Axe, London, E.C.
46, Gordon Street, Glasgow.
119, East 21st St., New York, U.S.A

M WALL AND CEILING COVERINGS

ROTTMANN, STROME & CO S EMBOSSED LEATHER PAPER HANGINGS



No 5819. 36 inches wide. (Drawing represents double width—to 72 inches)



No 5820. 36 inches wide.

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WAREHOUSES and SHOWROOMS 46, Gordon Street, Glasgow.
119, East 21st St., New York, U.S.A.



CEILING PANELS. 36 inches square. No. 5860 (Drawing represents 4 panels)



No. 5916 FRIEZE. 24 inches wide

WAREHOUSES and SHOWROOMS
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Telegraphic Address

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LINCRUSTA-WALTON.

Telephone No. 3752

Price lists and descriptions

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DADOES.

Upon paper backing. Canvas backing 6d. extra per piece of 12 yards. N.B. Dadoes Black Colour B (Brown), but the other Co. are not. A Red, C Green, and D Buff, can be made to order in a few days. Ad in 1/2 yd. lengths. Extra charge for cutting length 1/2.

Height in ft.		Width in ft.		Pattern No.	Design.	Price.	Height in ft.	Width in ft.		Pattern No.	Design.	Price.	
As cut in 10 ft. lengths. Extra charge for cutting long in ft.													
As cut	19	100			Fluted	3 0 per lin. yd.	18 1/2	As cut	285		Bamboo	1 6 per 10 yd	
23	As cut	101			Early English	2 0 "	18 1/2	286		Corduroy	1 9 "		
19 1/2	do	102			Japanese	2 0 "	18 1/2	287		Adams	2 0 "		
19 1/2	do	103			Gothic	2 2 3 "	27	1027		Chamfered Wood	5 0 "		
37	104	139			Japanese	2 9 per block	As cut	10	1100		Square Diaper	4 0 "	
37	139	140			Right do.	2 9 "	18	1101		Old English	4 6 per block		
"	"	141			Straight do.	2 9 "	As cut	9 1/2	1110		Matched Board	1 6 per lin. yd	
"	"	142			Italian Renaissance	2 6 "	18	1111		Parquet	2 3 "		
"	"	143			Right do.	2 6 "	18	1112		Lawn Fold	2 9 "		
"	"	144			Left do.	2 6 "	18	1113		Flan Panel	3 9 "		
"	"	145			Straight do.	2 6 "	As cut	24	1130		Flute and Panel	3 0 "	
23 1/2	As cut	146			Japanese	2 6 per lin. yd.	As cut	18	1140		Tiles	2 3 "	
23	do.	150			Adams	2 8 "	As cut	12 1/2	1141		Oriental (Peacock)	1 9 "	
23	do.	151			Arabian	2 9 "	18 1/2	23	1142		Italian	4 0 per block	
21 1/2	As cut	152			Japanese	1 0 "					Etc., Etc.	Etc., Etc.	
35 1/2	101	105			16th Century Panel	4 0 per block							

FILLINGS.

N.B. - Fittings should be cut to match with a border moulding or plain rail. Extra can be supplied mounted with Lincrusta Walton to match. See DADO PAINTS next page.

Width in ft.		Design.		Price.	Width in ft.		Design.		Price.	Width in ft.		Design.		Price.
in	ft.			per	in	ft.			per	in	ft.			per
18	20		Date Palm	2 2 "	18	143	Cross Chain	1 6 "	18	201	Italian	1 6 "		1 6 "
18	40		Floral	2 2 "	18 1/2	154	Adams (Vase)	2 6 "	18 1/2	202	Renaissance (dbl width)	3 0 "		3 0 "
18 1/2	53		Floral	2 2 "	18 1/2	155	Persian Vase	2 6 "	18 1/2	203	Satyrs Head	3 0 "		3 0 "
18	01		Floral	2 2 "	18	156	Small Diaper	1 8 "	18	204	Arabian	2 0 "		2 0 "
18	103		Venetian	1 6 "	22 1/2	160	Eligree	2 3 "	18	1100	Damask	3 0 "		3 0 "
18	121		Flower	1 6 "	18 1/2	161	Early English	2 9 "	18	1101	Renaissance	2 6 "		2 6 "
11 1/2	112		Gothic	2 0 "	18 1/2	162	Pattern	1 6 "	22	1102	Fluted Embroidery	2 3 "		2 3 "
18 1/2	113		Arabian	1 8 "	18	163	Italian	2 5 "	18	1103	Arabian	2 6 "		2 6 "
18 1/2	114		Sandflower	2 9 "	18	164	Sycamore Leaf	2 0 "	22	1104	Alhambra	2 3 "		2 3 "
18 1/2	115		Japanese (Rose)	2 6 "	18	165	Poppies	2 0 "	18	1105	Oriental	2 0 "		2 0 "
18 1/2	116		Gothic Lily	1 6 "	18	166	Japanese (Red)	2 6 "	18	1106	Applique Lace	1 3 "		1 3 "
11 1/2	117		Renaissance	1 8 "	18 1/2	167	Rose and Fret Diaper	2 9 "	18	1107	Alhambra	2 0 "		2 0 "
18	118		Crope	1 6 "	18	168	Adams	1 6 "	18	1108	French Renaissance	3 0 "		3 0 "
18	119		Morocco	1 6 "	18	169	Italian Husk	1 9 "	18	1109	Arabian Scroll	1 6 "		1 6 "
18	120		Sand-grain	2 6 "	18	170	Oriental	2 9 "	18 1/2	1110	Floral	2 6 "		2 6 "
18	121		Smooth	2 6 "	18	171	Italian	2 9 "	18	1111	Venetian	1 6 "		1 6 "
18 1/2	122		Japanese (Fret)	1 0 "	18	172	Adams (Diaper)	2 0 "	18	1112	Naturalistic	1 6 "		1 6 "
18 1/2	123		Cupid	2 0 "	18	173	Tulip	2 0 "			Etc., Etc.			
18 1/2	124		New Gothic	2 6 "	22 1/2	201	Fleur-de-Lys	2 0 "						

FRIEZES.

N.B. - Friezes should be cut to match with a border moulding, viz. A Red, B Brown, and C Green, can be made to order in a few days. Ad in 1/2 yd. lengths. Extra charge for cutting length 1/2.

Width in ft.	Height in ft.	Pattern No.	Design.	Price.	Width in ft.	Height in ft.	Pattern No.	Design.	Price.
10 1/2	12 1/2	125	Flower	1 0 "	10 1/2	12 1/2	285	Adams	1 0 "
10 1/2	12 1/2	126	Japanese	1 0 "	10 1/2	12 1/2	286	Rose and Fret Diaper	1 0 "
10 1/2	12 1/2	127	Floral	1 0 "	10 1/2	12 1/2	287	Adams	1 0 "
10 1/2	12 1/2	128	Leaf and Flower	1 0 "	10 1/2	12 1/2	288	Small Diaper	1 0 "
10 1/2	12 1/2	129	Adams	1 0 "	10 1/2	12 1/2	289	do.	1 0 "
11 1/2	12 1/2	130	French	1 0 "	10 1/2	12 1/2	290	Scroll	1 0 "
11 1/2	12 1/2	131	Arabian	1 0 "	10 1/2	12 1/2	291	Madison	1 0 "
10 1/2	12 1/2	132	Garland	1 0 "	10 1/2	12 1/2	1103	do.	1 0 "
10 1/2	12 1/2	133	Floral	1 0 "	10 1/2	12 1/2	1111	Cord	1 0 "
10 1/2	12 1/2	134	Ray Garland	1 0 "	10 1/2	12 1/2	1112	Griffin & Shield	1 0 "
10 1/2	12 1/2	135	Arabian Palace	1 0 "	10 1/2	12 1/2	1113	do.	1 0 "

CEILING DECORATION.

All Friezes in 12 yard lengths. Extra charge for cutting lengths.

Width in ft.	Height in ft.	Pattern No.	Design.	Color.	Price.	Width in ft.	Height in ft.	Pattern No.	Design.	Color.	Price.
10	10 1/2	1058	Modern Renaissance	D	3 6	10	10 1/2	1115	Ceiling Moulding	D	3 6
10	11 1/2	1133	Gothic	D	3 6	10	11 1/2	1116	do.	D	3 6
10	12	1134	Diaper	D	3 6	10	12	1117	do.	D	3 6
10	12 1/2	1135	Renaissance	D	3 6	10	12 1/2	1118	do.	D	3 6
10 1/2	12 1/2	1136	Style for Ditto	D	3 6	10 1/2	12 1/2	1119	do.	D	3 6
10 1/2	12 1/2	1137	Madison	D	3 6	10 1/2	12 1/2	1120	do.	D	3 6
10 1/2	12 1/2	1138	do. Ends to match	D	3 6	10 1/2	12 1/2	1121	do.	D	3 6
10 1/2	12 1/2	1139	Laurel	D	3 6	10 1/2	12 1/2	1122	do.	D	3 6
10 1/2	12 1/2	1140	16th Century	D	3 6	10 1/2	12 1/2	1123	do.	D	3 6

All Friezes marked * are suitable for Ceiling Decorations.

Illustrations given for Moulded and Painted Cornices in special Literature. Without Design. A great variety of Borders and Mouldings from 1/2 in. to 2 1/2 in.

Write for Free Lists and Lithos, also see Border Book

For new of 1896 and 1897 New Patterns see Illustrations on next Four Pages and Company's 1896 Price List

CONTRACTORS' COMPENDIUM.

Y Y

385

LINCROSTA-WALTON.
(*Registered Design*)

$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$	$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{y}} \right) = \frac{\partial L}{\partial y}$
$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{z}} \right) = \frac{\partial L}{\partial z}$	$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{\theta}} \right) = \frac{\partial L}{\partial \theta}$

4 ft. 6 in.
Dado No. 1129, 28 in. wide.
3/8 per lin. yard.

[illegible]

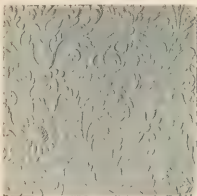
Height in inches	48
Width in inches	28
Price per block	4 -

M.—WALL AND CEILING COVERINGS.

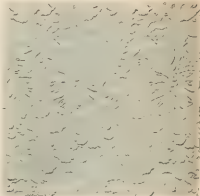
LINCRUSTA-WALTON.

$$\{x_1, \dots, x_n, y_1, \dots, y_n\}$$

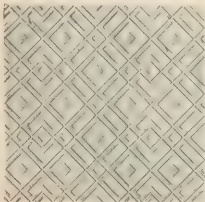
P.J. $\rightarrow$ N 1. 4 221. 6. 6 23 4 1 5.



July 28	1124	18	161.41	70.
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Days N 11.44 20.11 31.12 1 = per lin. yd.



Dado No. 1130. 241 x 6 5/8 x 11 1/2



Let Γ be a real vector space of dimension n and $\log_2$ be a linear map of Γ into $\mathbb{R}^n$. Then $\log_2$ is a linear map of Γ into $\mathbb{R}^n$. Let Γ be a real vector space of dimension n and $\log_2$ be a linear map of Γ into $\mathbb{R}^n$. Then $\log_2$ is a linear map of Γ into $\mathbb{R}^n$.

Prices Greatly Reduced

$$\text{See } \chi^2 \text{ Pr} = 1 - e^{-\frac{1}{2}\chi^2} \left(1 + \frac{1}{2}\chi^2 \right) e^{-\frac{1}{2}\chi^2} \quad \text{mod } p=2, \quad p \in \mathbb{N}, \quad n=2, 4, 6, \dots$$

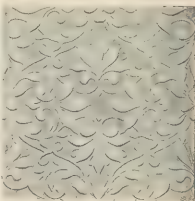
M.—WALL AND CEILING COVERINGS.

LINCRUSTA-WALTON.

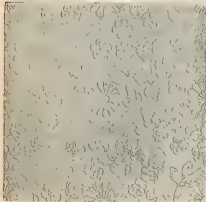
Ceiling No. 1136. 18 in. wide. 3 - per bu. yd.



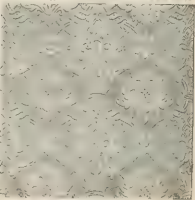
Ceiling No. 1137. 18 in. wide. 2 - per bu. yd.



1138. 18 in. wide. 16 per bu. yd.



1139. 18 in. wide. 16 per bu. yd.



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See also Price List published herewith, on pages immediately preceding these illustrations.

M.—WALL AND CEILING COVERINGS.

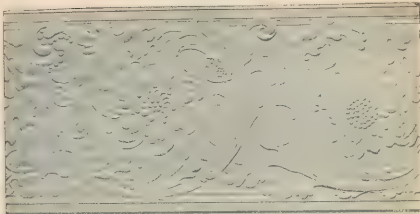
LINCURSTA-WALTON.

(Registered Design)

18 in. wide.

Picture No. 298.

3 - per lin. yd



Picture No. 299.

18 in. wide.

3 - per lin. yd



Picture No. 300.

18 in. wide.

3 - per lin. yd



In addition to the Dadoes, Friezes, Cornices, &c., &c., the Company make a vast number of Borders, Panels, Dado and Picture Rails, also Plaques in high relief, at very low prices.

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WM WOOLLAMS & Co., BLOCK PRINTED DADO DECORATION.

FRIEZE.

Price from
15d. per yard.

FILLING.

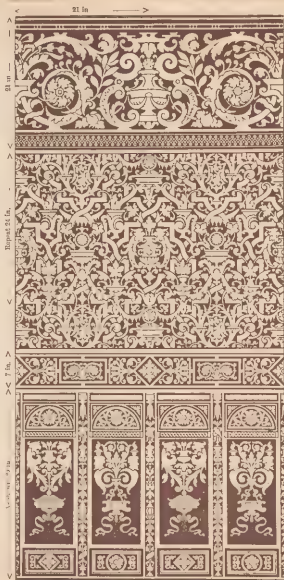
Price from
4d. per yard.

BORDER.

Price from
4d. per yard.

DADO

Price from
15d. per breadth
21 in. wide.
Maximum height
42 in.



Regd. No. 140,354.

"KING'S COLLEGE" DADO DECORATION, Designed by OWEN W. DAVIS for WM. WOOLLAMS & Co.
SHEWN AT THE PARIS EXHIBITION, 1889, GOLD MEDAL AWARDED.

SOLE ADDRESS:—110, HIGH STREET, (near Manchester Square,) London. W.

This decoration can be made in any shades of body colour (hand printed) to order; also in rich colours and gold, or in raised flock for painting over.

A suitable extension of the Dado is provided (without extra charge) by means of which it can be cut on the make for use on Staircases.

WM WOOLLAMS & Co., BLOCK PRINTED DADO DECORATION.

FRIEZE.

Price from
15d. per yard

FILLING.

Price from
4½d. per yard.

BORDER.

Price from
4d. per yard.

DADO.

Price from
15d. per panel
21 in wide
Maximum height
42 in



See—This decoration can be made in any shades of body colour, (hand printed) to order, also in rich colours with flock and gold, or in raised flock for painting over.
A suitable entrance to the Dado is provided (without extra charge) by means of which it can be cut on the same level as the main floor.

Engl. No. 140,375

"TUSCAN" DADO DECORATION. Designed by T W HAY for WM. WOOLLAMS & Co
SHEWN AT THE PARIS EXHIBITION, 1889, GOLD MEDAL AWARDED.

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22 A.

"RAMBO LL" Designed by A. HARRAT.
Price from 3d. per yard.



23 A.

"SHAM" Designed by E. H. WILLIAMS.
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24 A.

"HERBERT" Designed by Owen W. Davis.
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THE COMPLETE CATALOGUE.

Section N. VARIOUS.

FIRMS REPRESENTED IN THIS SECTION.

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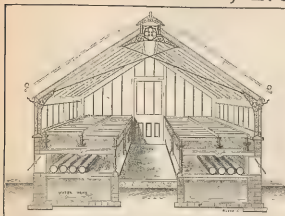
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518	Long Joint, 14 inch	22	0
519	Long Joint, 16 inch	24	0
520	Long Joint, 18 inch	26	0
521	Long Joint, 20 inch	28	0
522	Long Joint, 22 inch	30	0
523	Long Joint, 24 inch	32	0
524	Long Joint, 26 inch	34	0
525	Long Joint, 28 inch	36	0
526	Long Joint, 30 inch	38	0
527	Long Joint, 32 inch	40	0
528	Long Joint, 34 inch	42	0
529	Long Joint, 36 inch	44	0
530	Long Joint, 38 inch	46	0
531	Long Joint, 40 inch	48	0
532	Long Joint, 42 inch	50	0
533	Long Joint, 44 inch	52	0
534	Long Joint, 46 inch	54	0
535	Long Joint, 48 inch	56	0
536	Long Joint, 50 inch	58	0
537	Long Joint, 52 inch	60	0
538	Long Joint, 54 inch	62	0
539	Long Joint, 56 inch	64	0
540	Long Joint, 58 inch	66	0
541	Long Joint, 60 inch	68	0
542	Long Joint, 62 inch	70	0
543	Long Joint, 64 inch	72	0
544	Long Joint, 66 inch	74	0
545	Long Joint, 68 inch	76	0
546	Long Joint, 70 inch	78	0
547	Long Joint, 72 inch	80	0
548	Long Joint, 74 inch	82	0
549	Long Joint, 76 inch	84	0
550	Long Joint, 78 inch	86	0
551	Long Joint, 80 inch	88	0
552	Long Joint, 82 inch	90	0
553	Long Joint, 84 inch	92	0
554	Long Joint, 86 inch	94	0
555	Long Joint, 88 inch	96	0
556	Long Joint, 90 inch	98	0
557	Long Joint, 92 inch	100	0
558	Long Joint, 94 inch	102	0
559	Long Joint, 96 inch	104	0
560	Long Joint, 98 inch	106	0
561	Long Joint, 100 inch	108	0
562	Long Joint, 102 inch	110	0
563	Long Joint, 104 inch	112	0
564	Long Joint, 106 inch	114	0
565	Long Joint, 108 inch	116	0
566	Long Joint, 110 inch	118	0
567	Long Joint, 112 inch	120	0
568	Long Joint, 114 inch	122	0
569	Long Joint, 116 inch	124	0
570	Long Joint, 118 inch	126	0
571	Long Joint, 120 inch	128	0
572	Long Joint, 122 inch	130	0
573	Long Joint, 124 inch	132	0
574	Long Joint, 126 inch	134	0
575	Long Joint, 128 inch	136	0
576	Long Joint, 130 inch	138	0
577	Long Joint, 132 inch	140	0
578	Long Joint, 134 inch	142	0
579	Long Joint, 136 inch	144	0
580	Long Joint, 138 inch	146	0
581	Long Joint, 140 inch	148	0
582	Long Joint, 142 inch	150	0
583	Long Joint, 144 inch	152	0
584	Long Joint, 146 inch	154	0
585	Long Joint, 148 inch	156	0
586	Long Joint, 150 inch	158	0
587	Long Joint, 152 inch	160	0
588	Long Joint, 154 inch	162	0
589	Long Joint, 156 inch	164	0
590	Long Joint, 158 inch	166	0
591	Long Joint, 160 inch	168	0
592	Long Joint, 162 inch	170	0
593	Long Joint, 164 inch	172	0
594	Long Joint, 166 inch	174	0
595	Long Joint, 168 inch	176	0
596	Long Joint, 170 inch	178	0
597	Long Joint, 172 inch	180	0
598	Long Joint, 174 inch	182	0
599	Long Joint, 176 inch	184	0
600	Long Joint, 178 inch	186	0
601	Long Joint, 180 inch	188	0
602	Long Joint, 182 inch	190	0
603	Long Joint, 184 inch	192	0
604	Long Joint, 186 inch	194	0
605	Long Joint, 188 inch	196	0
606	Long Joint, 190 inch	198	0
607	Long Joint, 192 inch	200	0
608	Long Joint, 194 inch	202	0
609	Long Joint, 196 inch	204	0
610	Long Joint, 198 inch	206	0
611	Long Joint, 200 inch	208	0
612	Long Joint, 202 inch	210	0
613	Long Joint, 204 inch	212	0
614	Long Joint, 206 inch	214	0
615	Long Joint, 208 inch	216	0
616	Long Joint, 210 inch	218	0
617	Long Joint, 212 inch	220	0
618	Long Joint, 214 inch	222	0
619	Long Joint, 216 inch	224	0
620	Long Joint, 218 inch	226	0
621	Long Joint, 220 inch	228	0
622	Long Joint, 222 inch	230	0
623	Long Joint, 224 inch	232	0
624	Long Joint, 226 inch	234	0
625	Long Joint, 228 inch	236	0
626	Long Joint, 230 inch	238	0
627	Long Joint, 232 inch	240	0
628	Long Joint, 234 inch	242	0
629	Long Joint, 236 inch	244	0
630	Long Joint, 238 inch	246	0
631	Long Joint, 240 inch	248	0
632	Long Joint, 242 inch	250	0
633	Long Joint, 244 inch	252	0
634	Long Joint, 246 inch	254	0
635	Long Joint, 248 inch	256	0
636	Long Joint, 250 inch	258	0
637	Long Joint, 252 inch	260	0
638	Long Joint, 254 inch	262	0
639	Long Joint, 256 inch	264	0
640	Long Joint, 258 inch	266	0
641	Long Joint, 260 inch	268	0
642	Long Joint, 262 inch	270	0
643	Long Joint, 264 inch	272	0
644	Long Joint, 266 inch	274	0
645	Long Joint, 268 inch	276	0
646	Long Joint, 270 inch	278	0
647	Long Joint, 272 inch	280	0
648	Long Joint, 274 inch	282	0
649	Long Joint, 276 inch	284	0
650	Long Joint, 278 inch	286	0
651	Long Joint, 280 inch	288	0
652	Long Joint, 282 inch	290	0
653	Long Joint, 284 inch	292	0
654	Long Joint, 286 inch	294	0
655	Long Joint, 288 inch	296	0
656	Long Joint, 290 inch	298	0
657	Long Joint, 292 inch	300	0
658	Long Joint, 294 inch	302	0
659	Long Joint, 296 inch	304	0
660	Long Joint, 298 inch	306	0
661	Long Joint, 300 inch	308	0
662	Long Joint, 302 inch	310	0
663	Long Joint, 304 inch	312	0
664	Long Joint, 306 inch	314	0
665	Long Joint, 308 inch	316	0
666	Long Joint, 310 inch	318	0
667	Long Joint, 312 inch	320	0
668	Long Joint, 314 inch	322	0
669	Long Joint, 316 inch	324	0
670	Long Joint, 318 inch	326	0
671	Long Joint, 320 inch	328	0
672	Long Joint, 322 inch	330	0
673	Long Joint, 324 inch	332	0
674	Long Joint, 326 inch	334	0
675	Long Joint, 328 inch	336	0
676	Long Joint, 330 inch	338	0
677	Long Joint, 332 inch	340	0
678	Long Joint, 334 inch	342	0
679	Long Joint, 336 inch	344	0
680	Long Joint, 338 inch	346	0
681	Long Joint, 340 inch	348	0
682	Long Joint, 342 inch	350	0
683	Long Joint, 344 inch	352	0
684	Long Joint, 346 inch	354	0
685	Long Joint, 348 inch	356	0
686	Long Joint, 350 inch	358	0
687	Long Joint, 352 inch	360	0
688	Long Joint, 354 inch	362	0
689	Long Joint, 356 inch	364	0
690	Long Joint, 358 inch	366	0
691	Long Joint, 360 inch	368	0
692	Long Joint, 362 inch	370	0
693	Long Joint, 364 inch	372	0
694	Long Joint, 366 inch	374	0
695	Long Joint, 368 inch	376	0
696	Long Joint, 370 inch	378	0
697	Long Joint, 372 inch	380	0
698	Long Joint, 374 inch	382	0
699	Long Joint, 376 inch	384	0
700	Long Joint, 378 inch	386	0
701	Long Joint, 380 inch	388	0
702	Long Joint, 382 inch	390	0
703	Long Joint, 384 inch	392	0
704	Long Joint, 386 inch	394	0
705	Long Joint, 388 inch	396	0
706	Long Joint, 390 inch	398	0
707	Long Joint, 392 inch	400	0
708	Long Joint, 394 inch	402	0
709	Long Joint, 396 inch	404	0
710	Long Joint, 398 inch	406	0
711	Long Joint, 400 inch	408	0
712	Long Joint, 402 inch	410	0
713	Long Joint, 404 inch	412	0
714	Long Joint, 406 inch	414	0
715	Long Joint, 408 inch	416	0
716	Long Joint, 410 inch	418	0
717	Long Joint, 412 inch	420	0
718	Long Joint, 414 inch	422	0
719	Long Joint, 416 inch	424	0
720	Long Joint, 418 inch	426	0
721	Long Joint, 420 inch	428	0
722	Long Joint, 422 inch	430	0
723	Long Joint, 424 inch	432	0
724	Long Joint, 426 inch	434	0
725	Long Joint, 428 inch	436	0
726	Long Joint, 430 inch	438	0
727	Long Joint, 432 inch	440	0
728	Long Joint, 434 inch	442	0
729	Long Joint, 436 inch	444	0
730	Long Joint, 438 inch	446	0
731	Long Joint, 440 inch	448	0
732	Long Joint, 442 inch	450	0
733	Long Joint, 444 inch	452	0
734	Long Joint, 446 inch	454	0
735	Long Joint, 448 inch	456	0
736	Long Joint, 450 inch	458	0
737	Long Joint, 452 inch	460	0
738	Long Joint, 454 inch	462	0
739	Long Joint, 456 inch	464	0
740	Long Joint, 458 inch	466	0
741	Long Joint, 460 inch	468	0
742	Long Joint, 462 inch	470	0
743	Long Joint, 464 inch	472	0
744	Long Joint, 466 inch	474	0
745	Long Joint, 468 inch	476	0
746	Long Joint, 470 inch	478	0
747	Long Joint, 472 inch	480	0
748	Long Joint, 474 inch	482	0
749	Long Joint, 476 inch	484	0
750	Long Joint, 478 inch	486	0
751	Long Joint, 480 inch	488	0
752	Long Joint, 482 inch	490	0
753	Long Joint, 484 inch	492	0
754	Long Joint, 486 inch	494	0
755	Long Joint, 488 inch	496	0
756	Long Joint, 490 inch	498	0
757	Long Joint, 492 inch	500	0
758	Long Joint, 494 inch	502	0
759	Long Joint, 496 inch	504	0
760	Long Joint, 498 inch	506	0
761	Long Joint, 500 inch	508	0
762	Long Joint, 502 inch	510	0
763	Long Joint, 504 inch	512	0
764	Long Joint, 506 inch	514	0
765	Long Joint, 508 inch	516	0
766	Long Joint, 510 inch	518	0
767	Long Joint, 512 inch	520	0
768	Long Joint, 514 inch	522	0
769	Long Joint, 516 inch	524	0
770	Long Joint, 518 inch	526	0
771	Long Joint, 520 inch	528	0
772	Long Joint, 522 inch	530	0
773	Long Joint, 524 inch	532	0
774	Long Joint, 526 inch	534	0
775	Long Joint, 528 inch	536	0
776	Long Joint, 530 inch	538	0
777	Long Joint, 532 inch	540	0
778	Long Joint, 534 inch	542	0
779	Long Joint, 536 inch	544	0
780	Long Joint, 538 inch	546	0
781	Long Joint, 540 inch	548	0
782	Long Joint, 542 inch	550	0
783	Long Joint, 544 inch	552	0
784	Long Joint, 546 inch	554	0
785	Long Joint, 548 inch	556	0
786	Long Joint, 550 inch	558	0
787	Long Joint, 552 inch	560	0
788	Long Joint, 554 inch	562	0
789	Long Joint, 556 inch	564	0
790	Long Joint, 558 inch	566	0
791	Long Joint, 560 inch	568	0
792	Long Joint, 562 inch	570	0
793	Long Joint, 564 inch	572	0
794	Long Joint, 566 inch	574	0
795	Long Joint, 568 inch	576	0
796	Long Joint, 570 inch	578	0
797	Long Joint, 572 inch	580	0
798	Long Joint, 574 inch	582	0
799	Long Joint, 576 inch	584	0
800	Long Joint, 578 inch	586	0
801	Long Joint, 580 inch	588	0
802	Long Joint, 582 inch	590	0
803	Long Joint, 584 inch	592	0
804	Long Joint, 586 inch	594	0
805	Long Joint, 588 inch	596	0
806	Long Joint, 590 inch	598	0
807	Long Joint, 592 inch	600	0
808	Long Joint, 594 inch	602	0
809	Long Joint, 596 inch	604	0
810	Long Joint, 598 inch	606	0
811	Long Joint, 600 inch	608	0
812	Long Joint, 602 inch	610	0
813	Long Joint, 604 inch	612	0
814	Long Joint, 606 inch	614	0
815	Long Joint, 608 inch	616	0
816	Long Joint, 610 inch	618	0
817	Long Joint, 612 inch	620	0
818	Long Joint, 614 inch	622	0
819	Long Joint, 616 inch	624	0
820	Long Joint, 618 inch	626	0
821	Long Joint, 620 inch	628	0
822	Long Joint, 622 inch	630	0
823	Long Joint, 624 inch	632	0
824	Long Joint, 626 inch	634	0
825	Long Joint, 628 inch	636	0
826	Long Joint, 630 inch	638	0
827	Long Joint, 632 inch	640	0
828	Long Joint, 634 inch	642	0
829	Long Joint, 636 inch	644	0
830	Long Joint, 638 inch	646	0
831	Long Joint, 64		

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Globe, Dec. 8th, 1884.

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"I have had for over two years a very damp wall covered with your 2-ply Willesden Paper. It has effectually protected my property, and now shows no signs of absorbing the wet."

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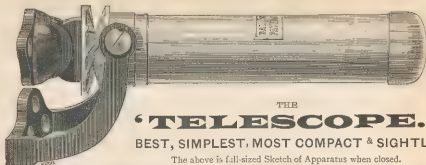
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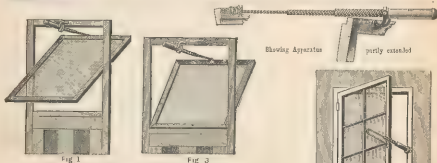
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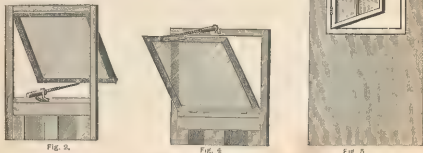
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" WATSON, R., & Co, London.
Lifts Worked by Steam Power—WATSON, R., & Co, London.
Lifts and Hoists. RODKINSON & Co, LIMITED, Birmingham.
Passenger Lifts—WATSON, R., & Co, London.
Patent High Pressure Suspendings—WATSON, R., & Co, London.
Power—MIDDLETON, R. Leeds.
Pump—SMITH, A., & STEVEN, London.
Self-Sustaining—MALLISON, WM, Manchester.
" SMITH, A., & STEVEN, London.
SHEAR—AMERICAN ELEVATOR CO, London.
" SMITH, A., & STEVEN, London.
Telescopic—SMITH, A., & STEVEN, London.
Warehouses Hoists—OLDFIELD, R. Leeds.
Wagon's Patent Balances—WATSON, R., AND Co, London.
Water, Steam or Gas Power Lifts—BRYMAN AND Sons, London and Manchester.
Wedge Safety—MIDDLETON, R. Leeds.

LIGHTING.

(FOR BURNERS AND "BURNERS.")

"Also" Carbon Light—ALCO GARDEN LIGHT CO, London.
"Sage Lamp." MIDLAND LIGHTING CO, Birmingham.

"Bower" Gas Lamps—BOWER, GEO., Nottigham.
Clapnet Light—HALLIDAY, J. C., Newcastle-on-Tyne.
"Colchester" Ventilating Gaslight—STOD, WM, AND Co, LIMITED, London.
"Compass" Burner Lighting Exp. MILNE, BOY, AND MARINE, London.
Daisy's Patent Albert Glass—DAIRY, London.
Defiant Safety Artisan Lamps—THE DEFENDERS SAFETY LAMP CO, LTD, London.
Electric—BRYMAN & Sons, London.
" GARDNER, A., & Co, London.
" DICK, S., & Sons, Leeds.
" GRAY, J. W., & Sons, London.
" MATTHEW, J. T., & Co, London.
" RICHARDSON, ELIAS & Co, London.
" BLAKE, J., & Co, London.
" STODOL & Co, London.
" TILLEY, H., & Co, London.
Electric Light Fixings—EVERARD & Co, LIMITED, London and Birmingham.
" WINE, C., & Co, Birmingham.

Electric Light Installations—BRYMAN & Sons, London and Manchester.
Electric Ventilating Glass Lights—BRYMAN AND Sons, London and Manchester.
Evered's Patent Patent Burner—EVERED & Co, LIMITED, Birmingham.
"Excelsior" Single Wick Burners—"EXCELSIOR" PATENT LAMP & BURNER CO, Birmingham.
"Fair-Pyramid" Lamp—CLARKE, S., London.
"Fountain" Gas Lamp. FOUNTAINS BURNERS TIRE LAMP CO, LIMITED, Manchester.
Gas—GRAY, J. W., & Sons, London.
"HATER, J., & Co, London.
Gas & Electric Fixings—TAYLOR & TUCKER, LIMITED, London.
Gas Controllers or Gas Lamps—DICKY, S., AND SON, Leeds.
Hicks' "Duplex" Lamps—HICKS & SON, LIMITED, Birmingham.
Hudson's Adjustable Reflecting Gas Light—HICKS, S., Birmingham.
Improved Street Lamps—UNSWAY, J., & Co, London.
Incandescent Gas Light—INCANDESCENT GAS LIGHT CO, LIMITED, London.
Lamp Brackets—EVERED & Co, London.
"Lighthouse"—MATTON, J., London.
"Lodges"—LODGES LIGHT CO, LIMITED, London.
"Marsh" Light—MARSH LIGHT CO, LIMITED, Manchester.
Miscellaneous Lamps—BIRCHETT BROS. & Co, London.
Regenerative Gas Lamp—SCHEPPE, F., London.
Safety Lamp—MATTON, J., London.
"Shaftebury" Safety Lamp. DIXIE, DAVID AND Co, London.
Sunderland Ventilating STODOL & Co, London.
Sunlights—TICKER, J. H., & Co, Bristol.
"Thompson Houson" System of Electric Lighting—LAW, WILKINSON & Co, London.
"Yacht" Patent Bunker Lamp—BRAN, E. A., AND Co, London.
Wallach Patent—INCANDESCENT GAS LIGHT CO, LIMITED, London.
Washburn Gas Lamp—WENMAN CO, LIMITED, London.

LIGHTNING CONDUCTORS.

Copper Taps. THIL, JOSHUA, Nottingham.
Gray's Patent Systems—GRAY, J. W., & Sons, London.
Lightning Conductors—BLACKBURN, J., Nottingham.
"HARDY, A., & Co, London.
"THOMAS, T., & Co, Birmingham.

Rope—THIL, JOSHUA, Nottingham.
"ANDERSON, R., & Co, London.
Solid Copper Taps—ANDERSON, R., & Co, London.
Solid Rope. THIL, JOSHUA, Nottingham.
"ANDERSON, R., & Co, London.

LIME.

Narrow Blue Lime Hydraulic—HILL, J., & Sons, London.
Blue Lime—PARRY, H., & Co, KIRBY LINDSEY.
Greenish Blue Lime GRAY, BULL & LARKIN, Wigan, Lancs.
Nelson's Blue Lime. NELSON, C., & Co, LIMITED, London.

LINCROSTA.

Lincrosta-Walton—WALTON, T., & Co, London and Sudbury.

LINOLEUM.

Indurated—WATKINS & Sons, London.
Stains Linoleum—BIRCHETT BROS. & Co, London.

LOCKS.

1. Locks
2. Lock Furniture.

I. Locks

Asylum Indicating—SMITH, C. & Sons, LIMITED, Birmingham and London.
Boobyer and Sons' Mortice Locks—BOOBYER, J. H., AND Sons, London.
Brass Rim—BOOBYER, J. H., & Sons, London.
Cabinets—BOOBYER, J. H., & Sons, London.
Dead Weight—VARIETY BROS, Leeds.
Eccentric Follow-up—YOUNG & Co, Wolverhampton and London.
"Eyerly's" Patent W.C. Penny Lock—OILBRY, J., Wolverhampton and London.
Gun Metal Bashed Mortice—WHITE & Sons, London.
Hill's Patent Reversible Locks—HILL, J., London.
Hand-made Safety Locks—YATES, R., J., & Co, Wolverhampton.
Imperial Guard Locks—YATES, R., J., & Co, Wolverhampton.
Mortice. COLLIERIES & BURNERS, Wolverhampton.
Mortice Gibbins' "And" Friction—GIBBINS, J., Wolverhampton and London.
Nottingham's Lever & Turnstile—NETTLEFIELD AND Sons, London.
Palace Motion Mortice. BROWN, A., & Co, Birmingham.
Palace Motion Rim—BATES, J., Wolverhampton.
Rim—CHALMERS & BARNES, Wolverhampton.
Safeguards Double Action Padlock BATES, J., Wolverhampton.
Searborough Mortice. BATES, J., Wolverhampton.
Springcase Rim. BURNETT, J. H., & Sons, London.
Summerfield's Weighted Locks—WALKER AND WHEELER, Birmingham.
To Differ with Master Keys—BOOBYER, J. H., AND Sons, London.
Triumph Unpickable. WALKER & WHEELER, Birmingham.
Tubular Reversible—TUBULAR LOCK SYNDICATE, LIMITED, London, E.C.
Walker's Magic Weighted Locks—WALKER AND WHEELER, Birmingham.
Wheelbolt—SMITH, C., & Sons, LIMITED, Birmingham and London.
"YALE Lock Co, London.
Young's Palace Motion Locks—YOUNG & Co, Wolverhampton.

OVERMANTELS.

(SEE "CHIMNEY PIECES AND OVERMANTELS")

PADLOCKS.

(SEE "LOCKS")

PAINTS.

Asbestos Fireproof Paint—**ARMSTRONG FIREPROOF PAINT CO. LIMITED, Birmingham.**
Carlson's Non-Poisonous Paint—**CARLSON, W. & SONS, London.**
Charles Egan's—**THE SILICATE PAINT CO., London.**
Chet-lui Enamel—**FAIR, J., London.**
Glasse, Wilson & Harvey, Silicochrome.
Durans.—**THE SILICATE PAINT CO., London.**
Non-Poisonous White Lead—**FRANKMAN, J. B. & CO., London.**
Removers—**WILSON & HARVEY, Silicochrome.**
Silicate Silicate Paint Co.—**SILICATE PAINT CO., London.**
Sulphur Iron Paint—**SILICATE PAINT CO., London.**
Torrey—**THE TORREY & DAVID PAINT CO. LIMITED, London.**

PALISADING.

Palisading—**BUTLER, JONES, & RAYSON, Waterbury, London.**
MAVILLAN, W. & CO., Glasgow.

PAPER.

1. WALL PAPERS, FOR WALL AND CEILING
CHITING.
2. WATERPROOF PAPERS, FOR "DAMP PROOF MATERIALS."
Willesden Waterproof—**THE "WILLESDEN" WATERPROOF PAPER AND CANVAS WORKS.**

PAPIER MACHE.

Decorative—**JACKSON, G. & SONS, London.**
"PLASTIC" DECORATION & PAPER
MACHINE CO., London.

PAVEMENT LIGHTS.

(SEE "GLASS")

PAVING.

(SEE "FLOORING AND PAVING")

PEDESTALS.

Granite for Statuary—**TUCKER, A. & SONS, London.**
Marble for Statuary—**TUCKER, A. & SONS, London.**

PENSTOCKS.

Light Flushing—**ADAMS & CO., York and London.**
Improved Egg-shaped—**BIRD & CO., London.**

PICTURE HANGERS.

"Picta"—**TUCKER, W. & SONS, Birmingham.**
Hook-and-Line and Picture Hangers—**TUCKER, W. & SONS, Birmingham.**

PIG TROUGHS.

Stoneware—**SKET, G. & CO., Tunbridge.**

PILE DRIVERS.

Benson's—**BELLS, SONNENTHAL, & CO., Ltd., London.**

PIPES.

1. **Stoneware and Metal.**
2. **Hose.**

1. Stoneware and Metal.

Agricultural Drain.—**WYNDHAM, H., Bachel.**
THIRINGTON COLLIERY AND BRICKWORKS, LIME, Exeter.
Boston's Patent Access.—**CRASS, J. & M., Kilmarnock.**
"Caledonia"—**GIARD SENGLE, GENEVE AND CO., Zurich.**
Cast Iron.—**MATTHEW, W. & CO., Glasgow.**
Cast Iron Bell.—**NORTH BRITISH FOUNDRY CO., London.**
Channel Drain (E. Norman Shaw & T. L. Watson's)—**EDWARDS, J. G., London.**
Channel Drain.—**WYNDHAM, H., Bachel.**
Channel Drain White Enamel Ware.—**BROAD AND CO., London.**
Drain Pipes.—**SKET, G. & CO., London.**
Drain Pipes, Non-percolating.—**BROAD & CO., London.**
Drawn Lead Bends.—**WYNDHAM, H., Bachel.**
Flow.—**WYNDHAM, H., Bachel.**
Gas.—**BELCHER & HILDON, Walsell.**
"LLOYD & LLOYD, Birmingham."
Glazed Sanitary.—**GIARD & CANNON, TROUSWORTH.**
"HARRISVILLE BRICK & TILE CO., Ltd., Exeter."
Glazed Stoneware.—**BALL & BOARDMAN, Sunderland.**
"BRONZE, DROS, Nuremberg."
THIRINGTON COLLIERY AND BRICKWORKS, LIME, Exeter.
Hot Water.—**BELCHER & HILDON, Walsell.**
"LLOYD & LLOYD, Birmingham."
Hot Water Pipes with Expansion Joints.—**ATWOOD, J., Birmingham.**
Hot Water Pipes.—**FRANKMAN & PEARSON, York.**
India Rubber Connections.—**TAYLOR, T. W., Ltd., London.**
Iron.—**BROAD & CO., London.**
"GORDON, HARRIS & WARNER, Nottingham."
THAMES BANK IRON CO., London.
Lead Knobs.—**JACKSON, G. & SONS, London.**
Lever Lock Cast Iron Drain.—**SOUTH BRITISH FOUNDRY CO., London.**
"Perfection"—**Rain Water—GREGORY, J., Bolton.**
Rock Concrete Tubes.—**BOWEN ROYCE & WORTON, London.**
Sou Western.—**SKET, G. & CO., London.**
SKET's Improved Access.—**SKET, G. & CO., London.**
SKET's Chain & Saddle.—**SKET, G. & CO., London.**
Stoneware Drain.—**BROAD & CO., London.**
"JENNINGS, GHD, London."
Stoneware Sewer.—**SKET, G. & CO., LIMITED, Tunbridge.**
Terra Cotta Pipe.—**SKET, G. & CO., LIMITED, Tunbridge.**
Water.—**BELCHER & HILDON, Walsell.**
"LLOYD & LLOYD, Birmingham."

2. Hose.

Canvas Hose.—**TUCKER, J. & SONS, London.**
Leather Hose.—**TUCKER, J. & SONS, London.**

PLANT HOUSES.

On Iron Standards.—**FOSTER & FRANKLIN, Reading.**

PLASTER.

Adams.—**ADAMANT CO. LIMITED, Birmingham.**
Barrow Hydraulic.—**BELL, J. & SONS, Leicester.**
Brown.—**"HYGIE" FIREPROOF PLASTERING CO., London.**
"JACKSON, G. & SONS, London."
"SCHEMIDT, C. M., London."
"THE PLASTIC DECORATION & PAPER MACHINE CO., London."
Fibrous Glass.—**WILLIAMS, W. B. & CO., London and Newcastle-on-Tyne.**
Non Inflammable Fibrous Glass.
Plaster.—**WYNDHAM, H. & CO., LIMITED, London.**
Wall Plaster Adams.—**ADAMANT CO., LIMITED, Birmingham.**

PLATES.

Name.—**BOYER, W. & CO., London.**

PORTABLE HOUSES.

Galvanized Corrugated Iron Buildings.—**BLAKELEY & F. & CO., Liverpool.**
Willesden Paper & Canvas Works.—**"WILLESDEN" WATERPROOF PAPER AND CANVAS WORKS.**

POTTERY.

Decorative.—**BURNETT, Leeds.**

PRESERVATIVES.

Carbolium Avarious.—**PETER, BARTON, AND CO., Derby.**

PRESSES.

Hydraulic Oil Press.—**E. LEEDS.**
Screw.—**OLDFIELD, E., Leeds.**

PULLEYS.

Axis.—**"Gibson's Patent" Roller.**—**GIBSON, J., Waterbury, London and London.**
Patent "Grip" Axis.—**HARRIS & GREEN, LIMITED, Leeds.**
Wells' Upgradable.—**UNEBERHARDEN PULLEY CO., Manchester.**

PULLEY BLOCKS.

Harnley's Chain Blocks.—**BRAW, W. & CO., Birmingham.**
6th Block.—**SHAW, W. & CO., Birmingham.**
"Bolt-Pass."—**PIGGOTT & BROS., London.**
Waters Differential.—**SHAW, W. & CO., Birmingham.**

PUMPS.

Bennison's Patent Lifter.—**HYMAN & WYATT, Sheffield.**
Brass House.—**TYLER, H. & CO., London.**
Centrifugal.—**WARRICK, J. & SONS, London.**
Chain.—**EVANS, J. & SONS, Waterbury, London.**
Cottage.—**TYLER, J. & SONS, London.**
Deep Well.—**TYLER, J. & SONS, London.**
"WARRICK, J. & SONS, London."
Wells, C. & CO., Birmingham.
Donkey.—**HENDLER, E. & SONS, London.**
Drainage.—**HENDLER & SONS, London and Manchester.**
Duplex.—**EVANS, J. & SONS, Waterbury, London.**
EVANS, EVANS, J. & SONS, Waterbury, London.
EVANS, EVANS, J. & SONS, Waterbury, London.

Fly Wheel.—HINDLEY, E. S., London.

Per Walls.—TYLER, H., & Co., London.

" TYLER, J., & Sons, London.

Perce.—BYRNE & Co., London.

Hot Air Engine, and Pump for Deep Wells.—

TYLER, H., & Co., London.

Hydraulic.—SMITH, A., & Sons, London.

Improved Castings.—TYLER, H., & Co., London.

Lift.—BYRNE & Co., London.

Lift and Force.—BYRNE, J., & Sons, Warrington.

" BYRNE & Co., Limited, London.

" TAYLOR, LTD., Birmingham.

" TYLER, J., & Sons, London.

Portable Indoor Fire.—MORRIS & SOFA, Manchester.

Paleomaster.—PHEASANT ENGINEERING CO., London.

Pumping Engines, Reliable. BYRNE, J., & Sons, Warrington.

Pumping Gear.—TYLER, J., & Sons, London.

" WYLL, C. & Co., Birmingham.

Pumps.—WYLL & Co., Limited, Guildford.

Roasting.—TYLER, J., & Sons, London.

" Sandingham " Hand Fire.—BAILEY, W. H., and Co., Manchester.

Sewage.—BYRNE & Sons, London and Manchester.

" TYLER, H., & Co., London.

" TYLER, J., & Sons, London.

Sewage Direct Acting.—BOWEN, SCOTT, and WESTERN, London.

Seams. SMITH & STEVENS, London.

" SLATER, J., & Co., London.

Sewage Direct Acting.—BOWEN, SCOTT, and WESTERN, London.

Swivel Spout.—TAYLOR LIMITED, Birmingham.

Warrington. WARRNER, J., & Sons, London.

RADIATORS.

(SEE "HEATING.")

RAILINGS.

(SEE "GATES AND RAILING.")

RAIN WATER.

1. Rain Water Goods.

2. Rain Water Purifiers.

1. Rain Water Goods.

Perfection Pipes.—GARRISON, J., Bolton.

Wallace's Patent Open Intercepting Trapped

Waterfall. BENTLEY & DOMESTIC

ENGINEERING CO., London.

2. Rain Water Purifier.

Salter's Separator.—ROBERTS, C. G., Exeter.

RANGES.

(SEE "KITCHEN AND RANGE.")

RAMS.

Hydraulic.—TYLER, H., & Co., London.

" WARRNER, J., & Sons, London.

READING DESKS.

(SEE "DESKS.")

READING STANDS.

Dalziel.—TAYLOR, W., & Sons, Birmingham.

REFLECTORS.

Chappell's Patent.—CHAPPELL, London.

REFRIGERATORS.

Refrigerators.—BURNHAM & SONS, London and Manchester.

ROOFS AND ROOFING.

(FOR GLAZED ROOFS, SEE GLAZING.)

Copper.—THURTELL, FRID., & Co., Limited, London, Liverpool, and Glasgow.

Herman's Improved Flat Brick.—HERMAN and

ROTHMAN, London and Manchester.

Irish.—HARRIS, E. F., & Co., Liverpool.

" GODDARD, MANNING, & WARRNER, Nottingham.

" MANN, A. & J., & Co., London and Glasgow.

" HOBBS, DREW, & Co., London.

" ST. PANTAS INTERWORKING CO., London.

Iron Rivets.—DUNN, A. D., London.

Steel Co. of India, Madras, & WARRNER, Nottingham.

Steel Rivets.—DUNN, A. D., London.

Willden Waterproof.—THE "WILLEN" WATERPROOF

PAINTS & CO., London.

Zinc.—BRISTOL, FRANK, & Co., Limited, London, Liverpool, and Glasgow.

ROPE.

Steel.—DIXON & CORREY, Glasgow and Tyne.

" NEWELL & Co., Glasgow and Tyne.

" SHAW, JOHN, Glasgow.

Wire.—DILLIANT & Co., London.

" WARRINGTON WIRE ROPE WORKS, Liverpool.

RUST PREVENTERS.

Anti-Oxide.—PETERS, DARTON & Co., Derby.

" Melpas.—GUTHRIE & Sons, Manchester.

SAFES.

" City.—WHITFIELD, F., & Co., Birmingham and London.

Chubb's New Patent.—CHUBB & Sons, London.

" Demon Holdfast.—PATENT SAFE, LOCK, and

ENGINEERING CO., Limited, Birmingham.

Fireproof.—BURNHAM & Sons, London and Manchester.

" PERD, F., & Sons, Limited, Bolton.

" PRINCE'S PATENT SAFE AND LOCK CO.,

LONDON, & Birmingham.

" REIDMERE, T., & Sons, Warrington.

" WHITFIELD, F., & Co., Birmingham and London.

" Invincible.—CHARTWELL, London.

" Office.—WHITFIELD, F., & Co., Birmingham and London.

" Triumph Unbreakable Lock.—WARRNER & WARRNER,

Birmingham.

SAFETY VALVES.

(SEE "VALVES.")

SASHES AND FRAMES.

(SEE "WIND.")

SASH FASTENERS.

(SEE "WINDOW & SASHING FITTINGS.")

SASH LINES.

Copper.—ANDERSON, R., & Co., London.

Henry's Line Fastener. HENRY, Col. R. E., London.

Hoskings' Metal Protector.—TAYLOR, LIMITED, Birmingham.

Iron.—ANDERSON, R., & Co., London.

Steel.—ANDERSON, R., & Co., London.

Wedge Line Holder.—MEASIN & Co., London.

SASH PULLIES.

Russell's Anti-Friction.—WHITE & SONS, London.

Solid Frame, Glazing.—MEASIN & Co., London.

SAW BENCHES.

Hand Power.—HINDLEY, E. S., London.

Self Feeding.—HINDLEY, E. S., London.

SCALES.

" Agents." BARTLEY, Wm., & Co., Birmingham.

SCRAPERS.

Scrapers.—GODWIN, SON, & Co., Limited, Slough

port.

SEATS.

Church.—HAMMER, G. M., & Co., London.

Marion Hall.—HAMMER, G. M., & Co., London.

Reverend Sunday School.—HAMMER, G. M., & Co., London.

SEWAGE.

Field's New 1882 Patent Automatic Flushing

Combs.—DUNN, SCOTT & WESTERN, London.

Glass Sewage Systems.—FORSTER, M., Bishop

Archard.

Improved Flange Filter Press. BOWEN SCOTT

and WESTERN, London.

Invert Blocks for Sewers.—BRY, J., & Sons,

London.

Patent Lining Machine.—BOWEN SCOTT and

WESTERN, London.

Pumps.—BOWEN SCOTT & WESTERN, London.

Shoe Hydro pneumatic System.—BOWEN and

LAMBERT, London.

SEWAGE PUMPS.

(SEE "PUMPS.")

SHELF FITTINGS.

Tonks' Patent.—TONKS, LIMITED, Birmingham.

SHINGLES.

Oak.—ABATE, J. & S., Hove and London.

SHOP FRONTS.

Brass.—DYSON & Co., London.

Brass.—DYSON & Co., London.

Cast Iron.—MACFARLANE, W., & Co., Glasgow.

SHUTTERS.

Double Folding.—BOWEN FOLDING GATE and

SHUTTER CO., LIMITED, Birmingham.

Rolling.—DYSON & Co., LIMITED, Birmingham.

" MALLINSON, W., Manchester.

SIGNS.

Enamelled.—AMERICAN TIN STAMPING CO.,
Hampart.
Wrought Iron.—BRODIE & Co., London.

SILICATE COTTON.

Silica's Cotton.—ANDERSON & SON, LIMITED,
London and Belfast.

SINKS.

Case Coloured Glass.—GIBBS & CHAMBER, Tem-
perance.
Combined Wash Up.—JENNINGS, Geo., Glasgow.
Draiser and Slip Machine.—TILLY, J. & Sons,
London.

Drainer and Wash Up.—V. WOODWARD & BOWEN,
Bristol.

Enamelled.—TILLY, J. & Sons, London.

Glass.—SHEP, G. & Co., LIMITED, Manchester.

Household Shop.—JENNINGS, Geo., Glasgow.

Household's Sink.—TILLY, J. & Sons, London.

Newman's Porcelain Glass.—NORTH BRITISH
FABRIC CO., London.

Square Top Shop Basin.—WOODWARD, J. and
BOWEN, Bristol.

Stoneware.—SHEP, G. & Co., LIMITED, Manchester.

White Enamelled.—TILLY, J. & Sons, London.

White Enamelled Pile Clay.—TILLY, J. & Sons,
London.

SKYLIGHTS.

Iron with Patent Lifter.—VANTY BROS., Leeds.

SLAGWOOL.

Slagwool.—ANDERSON & SON, LIMITED, London.

SLATES.

Blue.—PEN-TO-OSSED SLATE QUARRY CO.,
LIMITED.

Blueish Green.—BUTTERHEAR GREEN SLATE
CO., LIMITED, Newcastle.

Enamelled.—TURNER, A. S. London.

Green.—THE BUTTERHEAR GREEN SLATE CO.,
LIMITED, Newcastle.

Purple.—PEN-TO-OSSED SLATE QUARRY CO.,
LIMITED.

Redding.—ELIAS PARKINSON, & Co., Leicester.

Reddish (with Patent Movement).—TANGLER, O.M.,
and Co., London.

Tilburywhite Green.—TILBURWHITE GREEN
SLATE CO., Bristol.

STOP CLOSETS.

(SEE "BONKS.")

SMITH'S HEARTHS.

Cyclops Patent.—BOWENSON, DREW & Co., Lon-
don, & C.

SMOKE CURERS.

(SEE "COWIE.")

SNOW DISPENSER.

Bell's Patent.—BOTTING, E., London.

STAIN PROOFING.

Fibrous Concrete.—WILKINSON, W.B. & Co., New-
castle-on-Tyne and London.

Silica's Cotton.—ANDERSON & SON, LIMITED,
London.

SPRINGS.

(SEE "DOORS.")

STABLE FITTINGS.

(SEE "FITTINGS.")

STAINED GLASS.

(SEE "GLASS.")

STAINS.

Stains.—THE STAINING PAINT CO., London.
Transparent Stains for Wood.—SWINBURN, F.,
London.

STAIRCASES.

Concrete.—WILKINSON, W.B. & Co., Newcastle-on-
Tyne and London.

Iron.—GUTHRIE & WILLIAMS, London.

Marble.—GUTHRIE & WILLIAMS, London.

Spiral Iron.—MACFARLANE, W. & Co., Glasgow.

Straight Iron.—MACFARLANE, W. & Co., Glasgow.

Wood.—TURNER'S PATENT FLOOR, JOINTS AND
WOODWORKING CO., LIMITED, London.

Wrought Iron.—SMITH, O. & Sons, LIMITED,
Birmingham and London.

STALL PLATES.

Diamond Pattern.—DYSON & Co., London.

Field.—DYSON & Co., London.

STANCHION.

Cast.—DUNNAY, A. D., London.

Downson, DREW & Co., London.

Wrought Iron.—DOWNSON, DREW & Co., London.

STEEL.

MILD.—BUTTON & ASH, Birmingham.

STENCIL PLATES.

(SEE "PLATES.")

STONES.

1. Natural.

2. Artificial.

I. Natural.

Aliso, Red and White.—HADDON, J. & Son,
Nottingham.

Amber.—AMBER STONE CO., Grandham.

Box Ground.—BATH STONE FIRM, LIMITED, Bath.

Chalk.—LLOYD, T. P., Gillingham.

Crinoid.—CRINOID STONE FIRM, LIMITED, Bath.

Cornish Down.—BATH STONE FIRM, LIMITED,
Bath.

Craggish.—CHRY, J. & A., London.

Crinoid.—CHRY, J. & A., London.

Crinoid Building.—TAYLOR, F., London.

Crinoid Wood.—KILLEN BROS., Middleton-up-
Wyke.

Crinoid Bag.—BENNETT & SON, Maidstone.

Crinoid Park.—BATH STONE FIRM, LIMITED, Bath.

Crinoid Ground.—BATH STONE FIRM, LIMITED,
Bath.

Crinoid Marble.—FISHER BROS., Mansfield.

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DICTIONARY OF MANUFACTURERS' SPECIALTIES.

"Olympic" Lamp Stove. — ALBION LAMP CO., London.

Country Person's Grate. — BARNARD, BISHOP, AND BARNARD, Norwich and London.

"Empire" Grate. — CHURCH & SHAW, Wolverhampton.

Dog Grates. — HENRY & SONS, London.

"Eagle" Vase. — HENRY & SONS, London.

Edwards' Slow Combustion and Smoke Consuming Burner. — EDWARDS & SONS, London and Manchester.

Fletcher's Patent Warm Air. — FLETCHER & SONS, London and Manchester.

Gallien's Ventilating. — FALKNER IRON CO., London, and Fulham.

Gas. — HALL, W. & SONS, London.

McGowan's Patent Gas. — LIMITED, London.

Wilson's "Vulcan" C. & SONS, Leeds.

Open Portable Cooking Stove. — BROWN & GREEN, LIMITED, London.

Grundy's Hot Water Heaters (Boilers). — GRUNDY, London and Tyneside.

Grundy's Patent Warming and Ventilating. — GRUNDY, London and Tyneside.

Gurney. — LONDON WARMING AND VENTILATING CO., London.

Holms. — HEDDER, J. B., York.

Manchester Grate. — SHORLAND & SONS, Manchester.

Manchester Patent Grate. — SHORLAND & SONS, Manchester.

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Manchester Patent Grate. — SHORLAND & SONS, Manchester.

"Vertico" Boiler Stove. — PORTWAY, C. & SONS, London.

Ventilating Grates. — EDWARDS, F. & SONS, London.

Wharfedale Warm Air Ventilating Grate. — HERR & GARLAND.

STRONG ROOMS.

(STRONG ROOM FITTINGS, SEE "FITTINGS.")

Chalwood's Steel Bankers. — CHALWOOD & PARKY, Bury & LOCK CO., Bolton and London.

Fireproof. — HENRY & SONS, London and Manchester.

FREE, T. & SONS, Bristol.

Wrought Iron, Fittings for. — FARRAR & JACKSON, London.

SUN BURNERS.

Patent Ventilating. — SHORLAND & SONS, London.

SURVEYING & LEVELLING INSTRUMENTS.

Levels. — HARRISON, W. H., London.

Theodolites. — HARRISON, W. H., London.

SYPHONS.

(SEE ALSO "CHIMNEYS AND TANKS.")

Flood's New 1880 Patent Self-Acting Insulator. — FLOOD, BRISTOL & LONDON.

Self-acting Flushing. — TYLOR, J. & SONS, London.

TABLES.

Alter. — HANMER, G. M. & CO., London.

Billiard. — DIXIE & SONS, Manchester.

Loose. — HANMER, G. M. & CO., London.

Marble. — TUCKER, A. B., London.

Patent Writing Table. — HANMER, G. M. & CO., London.

Yasny. — HANMER, G. M. & CO., London.

TANKS.

(SEE "CHIMNEYS AND TANKS.")

TERRA COTTA.

Architectural. — BLANCHARD, M. H. & CO., Bishops Cleeve.

Bricks. — HANMER, G. M. & CO., London.

Clay. — J. & SONS, Warrington.

Durham & Co., London.

Glass & Canning. — TAYNOR & SONS, G. & CO., LIMITED, Tarnworth.

IRON. — HANMER, G. M. & CO., LIMITED, Tarnworth.

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TIDAL VALVES.

(SEE "VALVES.")

TILES.

Anglo-Portian. — EDWARDS, J. C., London.

Anglo-Portian. — EDWARDS, J. C., London.

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Anglo-Portian. — EDWARDS, J. C., London.

DICTIONARY OF MANUFACTURERS' SPECIALTIES.

Precision Screw Adjustment.—CARLAND, J. AND SONS, Birmingham and London.
Sash Fastener, Victoria Patent.—GIBSON, J., Wolverhampton and London.
Sash Opener and Automatic Fastener.—TUNKE, W. and SONS, Birmingham.
Scott Adjustment.—ADAMS, ROBERT, London.
Skipworth's Sash Fasteners.—CARLAND, J. AND SONS, Birmingham and London.
Skylight Opener.—LEIGHTON, W. & R., Bradford.
Stow's Patent Screw Sash Fastener.—STANDERS, SON & PATHE, LIMITED, Birmingham.
"Telegraphs."—BELL, H. A., London.
Tenax Fastlight Sash.—YOUNG & CO., Wolverhampton and London.
Tenax Wedge Cassment Sash.—TUNKE, LIMITED, Birmingham.
Triumph Secure Self Locking Sash Fasteners.—ADAMS, ROBERT, London.
Triumph Secure Fastlight Centres.—ADAMS, ROBERT, LONDON.
"Victoria" Patent Sash Fastener.—GIBSON, J., Wolverhampton and London.

Wakeman's New Mixture.—WALTER & WORSLEY, Birmingham.
Walker's Duplex.—WALKER & WORSLEY, Birmingham.
Warm and Sash Fastlight Apparatus.—SMITH, C. & SONS, LIMITED, Birmingham and London.
Wedge Cassment Sash.—TUNKE, W. & SONS, Birmingham.
Window Opening Apparatus.—FOSTER & PRINCE, Bristol.
Wrought Iron Sashes.—HORS, H., Birmingham.

WINE BINS.

Burrow's Rigid Wide Bins.—BURROW, W. & J., London.
Rahib's.—FARROW & JACKSON, London.
French.—FARROW & JACKSON, London.
Honeycomb.—KING & SMITH, Woking.
Registered Cellar.—FARROW & JACKSON, London.
Wrought Iron.—FARROW & JACKSON, London.

WIRE.

Drawn.—BENSON, STEEL, EDD & CO., London.
Electric.—GLOVER, T. & CO., Salford.
Steel and Iron.—WESTER, HOBBS & LEAN Birmingham.
Iron and Steel.—WOOD, J. & SONS, Birmingham.
Woven.—STARKIE, J., Farnley.
"—GIBSON & CO., Birmingham.
"—J. NICHOLS & SON, Birmingham.

WRINGERS.

(SEE "LATHEWORK.")

ZINC.

Viola Metaline.—BRANT & CO., London, Liverpool, and Glasgow.

ZINC WHITE.

Zinc White.—THE DELICATE PAINT CO., London.

NOTES AND ADDITIONAL SPECIALTIES.

DICTIONARY OF MANUFACTURERS' SPECIALTIES.

· NOTES AND ADDITIONAL SPECIALTIES.

S. DIXON & SONS,

New Show Rooms: BOAR LANE, LEEDS. Area 3,000 Feet.

Departments:

ELECTRIC LIGHTING IN ALL ITS BRANCHES.

ELECTROLIERS & FITTINGS IN STOCK.

Stoves, Grates, Fenders, and Kitcheners, of every Kind.

CHANDELIERS & GAS FITTINGS

IN WROUGHT IRON, BRASS, AND COPPER.

ARTISTIC METAL WORK, IN WROUGHT IRON, TO ORDER.

Morrison & Ingram's

BATHS, LAVATORIES, AND CLOSETS,

FOR PRIVATE AND PUBLIC BUILDINGS.

ESTIMATES GIVEN FOR ELECTRIC LIGHT INSTALLATIONS OF ALL KINDS.

Depot for Yorkshire of the WENHAM LAMP COMPANY.

The attention of Architects is specially drawn to the Stock in these Rooms, supplying, as they do, at a glance a history of what is being done at the present time in the above-named Departments.

PRICE BOOK.

COMPILED BY

HENRY LOVEGROVE, F.S.I., A.R.I.B.A.,

District Surveyor for South Islington, and one of the Quantity Surveyors to the School Board for London.

The following is an attempt to supply Current Prices in a clear and comprehensible form for the use of practical men. The work for the present year is divided into four Sections.

Section I.—Schedule in all Trades.

Section II.—Schedule for a Dwelling House.

Section III.—Schedule for a Church.

Section IV.—Builders' Measured Bill.

SECTION No. I.—SCHEDULE IN ALL TRADES.

EXCAVATOR.

Dig and throw out not exceeding 6 ft deep	s. d.
For every additional 6 ft. add	0 3 per yd cube
Remove sludge and ramming, add	0 3 "
Wheeling, add 3d for 50 yards run, and 1d. per yard cube for every 50 yards run beyond	
Basketing out ground, add 4d. per yard cube.	
Planking and strutting, 3d per foot super	
Do, do to trenches, both sides measured, 1d. per foot super.	

GLAZED STONEWARE DRAINS.

2 in. Diameter socket joints in cement, and digging—average 2 ft. 6 in. deep, and	s. d.
filling in	0 5 per ft. run
3 in. Do. do.	0 8 "
4 in. Do. do.	0 8 "
6 in. Do. do.	0 10 "
9 in. Do. do.	1 0 "
12 in. Do. do.	1 3 "
(And add digging)	
15 in. Do. do.	2 0 "
18 in. Do. do.	2 0 "
(And add digging)	
Add for 4 in. bends, 1s 0d. each, and 6 in. bends, 2s 0d. each	
1 in. Single junctions	2 0 each
6 in. Do.	1 8 "
4 in. Double do.	3 0 "
3 in. Do.	4 0 "
4 in. Syphon traps	1 0 "
6 in. Do.	1 0 "
Add if with inlet, 1s	
4 in. Sink or closet traps	1 0 "
6 in. Do.	1 0 "
4 in. Jennings's connections	2 0 "
6 in. Do.	3 0 "

Standard's patent joints 20 per cent. more than above
 Bedding and covering pipe drains in lime concrete from 2 in. to 9 in. from 6d. to 1s 6d. per foot run
 Yard gullies, 9 in. square at top, 4 in. outlet, 4s each. Iron grating, 1s extra.
 Do heavier pattern, 8 1/2 in. square inside, 4s. 6d each. Iron grating, 1s 9d extra.
 Do. 9 in. diameter, 4 in. outlet, 5s each. If with dish cover and iron grating, 6s extra.

CONCRETE FOUNDATIONS

Concrete composed of ground lime and pit ballast for foundations (1 to 6), 5s 6d to 6s per yard cube
 Do. with Thames ballast, 5s to 11s. per yard cube
 Do. two-thirds calcareous lime and one third Portland cement with Thames ballast (1 to 7), 14s per yard cube
 If composed of broken brick or stone chippings, deduct 1s 6d. per yard cube
 If composed of Portland cement and Thames ballast (1 to 7) 14s per yard cube
 If thrown from a stage 6 to 8 feet above ground level, add 6d. per yard.

FLOORING

Lime concrete, composed of broken brick or rough core and ground lime, laid under floors 6 in. thick, including levelling and ramming ground 1 0 per yd sup
 Do. composed of pit ballast and ground lime, do. do. 1 0 "
 Portland cement concrete, four of ballast or coarse bricks to one of cement do. .. 8 6 "
 Do. gauged, six to one, do. 8 0 "
 If on upper storeys, add for each storey .. 0 14 "
 Travertine cement (see 1 in thick, as floor .. 9 0 "

BRICKLAYER AND TILER

BRICKS AND ALL MATERIALS

The following prices are calculated at the p. o. rate of stocks at £1 10s per 1,000 delivered, and griddles, £1 6s
 An allowance of 6s per rod must be made for the variation of every shilling under or above that price
 An addition must be made of from 10 to 20 per cent. for work done in small quantities or difficult positions
 In cesspool, etc., laid dry 8 18 0 per rod reduced
 Do of stock do. 10 17 6 "
 Beskwork of griddles, and mortar composed of stone, lime, and Thames sand 11 10 0 "
 Do. half griddles and half stock 13 0 0 "
 Do. one-third griddles and two-thirds stock 12 13 0 "
 Do all stock 13 10 0 "
 Do of gash bricks at p. o. £2 5s per 1,000 16 15 0 "
 If with blue lia, add 0 10 0 per rod

BRICKLAYERS AND TILERS (continued)—

Extra only in Portland cement (1 of cement to 1 of sand) ..	£2 10	0 per rod
Half brick walls in mortar ..	..	0 4 per ft. sup.
Do. in cement ..	..	0 5 "
If in small work, add ..	..	0 1 "
One brick garden walls worked fair both sides and joints smooth ..	..	0 10 "
Extra only for circular face ..	..	0 1 per ft. sup.
Do. for battering face ..	..	0 0½ "
Do. for street joint for lime-whiting ..	..	0 4½ "
Cutting away in old wall and pining, and bonding new work into same, averaged half brick into old wall in cement with street face ..	..	1 0 per ft. sup.
Pulling down cleaning and stacking bricks (incl idling scaffold) ..	£ 10	0 per rod.
Building hollow walls the cavity 2 to 4 in. in width, with one galvanised iron tie to every 3 ft. super of wall, the brickwork measured net, extra only ..	..	0 2½ per ft. sup.
One course of brick on edge in cement ..	..	0 4 per ft. run
1½ brick on edge ..	..	0 6 "
1½ in. tile coping set in cement ..	..	0 8 "
Rendering in cement finished from the trowel ..	..	0 2 per ft. sup.
Iron band No. 10 gauge, 14 in. wide, burred and sanded and laid in walls ..	..	0 2 per yd. run
Rough cutting to miter or rump ..	..	0 2 per ft. sup.
Fair Do. do. do. ..	..	0 4 "
Rough Do. to 4 in. splay ..	..	0 3 per ft. run
Fair Do. do. ..	..	0 4 "
Rough Do. to 4 in. smooth on joint, quarter ..	..	0 5 "
Fair Do. do. do. ..	..	0 4½ "
Rough Do. to balloused angle ..	..	0 8 "
Fair Do. do. do. ..	..	0 4½ "
Chased 4 in. wide, out and purge ..	..	0 5 "
Do. 1 in. do. do. ..	..	0 5½ "
Points to grained arches in stone ..	..	0 2 "
Do. do. in masonry ..	..	1 0 "
Double plain tile creating in cement to 9 in. wall ..	..	0 6½ "
Do. to 14 in. wall ..	..	0 8 "
Lines and hair filleting ..	..	0 6½ "
Cement ..	..	0 2 "
Rails out and point to flashings in cement ..	..	0 1½ "
Do. to step ..	..	0 2 "
Cosah board trimmers, half-brick thick, in cement ..	..	0 6 per ft. sup.
Small and dock frame, ball and joint ..	..	1 0 each
Large " and Venetian ..	..	2 0 "
Minor good to window sill ..	..	0 6 to 1 2 "
Cutting and pining edge of 4 in. landing in cement ..	..	0 4 to 1 0 per ft. run
Do. do. " 6 in. ..	..	0 4 to 1 8 "
Do. 8 in. stone template, up to 18 in. x 12 in. ..	..	1 0 each
Do. 4 in. to 6 in. " up to 18 in. x 18 in. ..	..	1 6 "
Do. 6 in. of stone tread and riser ..	..	0 0 "
Do. do. stone step ..	..	0 8 "
Do. do. iron joints ..	..	0 9 "
Do. do. large ..	..	1 6 "
Do. do. iron ties ..	..	0 4 "
Do. do. small timbers ..	..	0 5 "
Do. do. large ..	..	1 6 "
Building in and making good to the above, one fourth of the prices given.	..	..
Damp Courses.		
Two courses of stout slates in cement ..	..	0 4 per ft. sup.
½ in. British asphalt ..	..	0 4 to 0 5 "
½ in. Sphers ..	..	0 5 to 0 7 "
For vertical work add one half to do.	..	..
Fluores asphalt in slabs ..	..	0 3 "
Glassed earthenware 1½ in. thick in cement ..	..	0 7 "
Do. ..	..	1 1½ "
Point ½ to edge of slate or asphalt, lamp ..	..	0 1½ per ft. run

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BRICKLAYERS AND TILERS (continued)—

BRICK MOSINGS—(The quarters to be measured in)

	s. d.	s. d.
With place bricks ..	3 4	per yd. sup. on edge, 4 5 flat
Do. Book ..	3 10	" " 5 0 "
If in cement add ..	0 8	" " 1 1½ "

FACINGS—(Extra only upon price of brickwork).

	s. d.	s. d.
Stocks ..	..	0 1 per ft. sup.
Pinked do. ..	..	0 1½ "
Bright yellow fronts ..	..	0 2 "
Mains, seconds ..	..	0 4½ "
Do. best ..	..	0 5 "
Red facings ..	..	0 2 to 0 4 "
Suffolk best white ..	..	0 5 to 0 8 "
Do. red ..	..	0 4 to 0 5 "
Do. 1 in. rubble (extra charged work) ..	..	0 10 "
Do. rubbed, gauged, and set in putty ..	..	2 0 "
Do. do. do. reduced to ..	..	..
5 courses to the foot ..	..	8 5 "
Kent gault bricks, best pressed ..	..	0 8½ "
Do. ware cut ..	..	0 7½ "
Bent's hand-made, solid ..	..	0 8 "
Do. best whites, perforated ..	..	0 8 "
Do. seconds ..	..	0 1½ "
Leam purple bricks ..	..	0 7½ "
Kareham red ..	..	0 8½ "
Do. thin, rising fine covers to the foot ..	..	0 8 "
Loughborough white, best pressed ..	..	0 6 "
Do. red ..	..	0 4½ "
Red pressed Staffordshire ..	..	0 7½ "
White glazed brick, equal quantity of heads and stockers, extra only on stocks ..	..	2 0 "

ARCHES.

Stocks with axed soffits ..	..	0 8 "
Do. Gothic elliptical or Venetian, 6 in. ..	..	1 2 "
Seeded mains, back pointed ..	..	1 6 "
Best washed mains or red bricks, chamber, segment, or semi-circular, gauged, rubbed and set in putty ..	..	1 8 "
Do. Elliptical ..	..	2 0 "
Do. Circular on plan, and to the above ..	..	2 10 "
Mouldings in gauged and cut masonry, set in putty ..	..	2 6 "
Do. Circular on plan ..	..	4 0 "

PAVINGS (per foot super.)

Including scaffold, raising out decayed mortar and washing and staining bricks.	..	0 2 per ft. sup.
Flat joint in ash mortar ..	..	0 2 per ft. sup.
Do. in cement ..	..	0 5 "
Do. to chimney shafts ..	..	0 6 "
Do. to fence walls ..	..	0 8 "
Two pointing to old fronts ..	..	0 5 "
Brickwork coloured and drawn ..	..	0 4½ per yard
(Extra over above.)		
Task pointing, new work ..	..	0 2½ per ft. sup.
Cost joint pointing ..	..	0 1½ "
Raking out cement points and pointing with flat joint in white mortar ..	..	0 2½ "
Limewhiting, per yard super, two coats ..	..	0 1½ "
Dinging ..	..	0 6 per yard

PAVING.

Laid in and polished, per yard, with	BLACK.	MONTAG.	CHESTNUT.
Grey stock, flat ..	..	2 6	3 8
Do. on edge ..	..	3 4	4 8
Mains paviers, flat ..	..	4 0	5 6
Do. on edge ..	..	5 8	6 7
Suffolk white bricks, flat ..	..	6 0	7 0
Do. do. on edge ..	..	6 9	8 11
Paving bricks, flat ..	..	6 1	8 5
Do. on edge ..	..	6 1	8 11
Ware white paving bricks, flat ..	..	8 11	4 5
Do. paving bricks, set in ..	..	0 0	0 5
Do. rubbed mix. faced to close joints, add ..	..	1 8	1 8

PRICE BOOK.

[Sec. I.—ALL TRADES.]

BRICKLAYER AND TILER (continued)—

Lead in, per yard super, with	Hand.	Mortar.	Cement.
	a. d.	a. d.	a. d.
Dutch clinker paving	..	..	11 3
Adamantine paving	..	..	12 3
Do. bevelled	..	..	13 6
If laid herring-bone, add	..	..	1 0
Blue Staffordshire paving bricks, flat	5 0	5 0	7 0
Blue chiselled, on edge	..	..	7 0
Blue building, brick flat	..	..	7 1
Do. on edge	..	..	7 1
Do. pressed, best quality, flat	..	..	7 1
Do. on edge	..	..	7 1
Blue Staffordshire stable bricks	..	..	7 0
Run cutting to rails, do.	..	..	2 0
Add for concrete bed (per yard sup.)	..	..	3 2
Add for finished surface	..	..	0 4
Add for finished bed	..	..	1 0

Tile and Masonry Pavements.

Steffs, tiles laid in cement, blue or red, per yard sup.	7 0
Steffs, best pressed in blue, red, buff, and black (laid to pattern), per yard super	30 0
Best quality tiles, in designs 3 in. thick, 8s. to 12s. at works.	..
If 7 in. thick, add 8s. per yard.	..
Packing and carriage, 3s. per yard.	..
Laying in cement, 3s. 6d. to 4s. per yard.	..

EXAMINER TILES.

6 in. x 6 in. at from	0 6 to 1 2 each
8 in. x 6 in. at from	0 9 2 4
6 in. x 6 in. White glazed tiles	5 0 per doz.
8 in. x 6 in. Do.	8 3
Halves of 6 in. Do.	2 6
6 in. x 6 in. Do. fixed complete	1 6 per ft. sup.
Do. octagonal do.	2 0

ROOF TILES.

Pan tiles laid dry, 10 in. gauge	1 5 6 per square
Do. bedded in hair and ash mortar	1 6 0 "
Do., do. pointed outside, shingle and heading included	1 11 6 "
Do., do., do. inside do.	1 19 0 "
Do., do., do. both sides do.	1 19 2 "
If 1 1/2 in. gauge, deduct	0 2 0 "
If 1 1/2 in. Do.	0 3 0 "
Heading to pan tiling	0 0 3 1/2 per ft. run
Outings to hips and eaves	0 0 2 "
Ridge and hips	0 0 4 "
Hip boards painted (3) and nails	0 1 0 each
Painted 7 nails	0 0 2 "
Old packing stripped, new lathed, and re-laid dry, allowing 90 new tiles to a square	1 0 0 per square
Plain tiles on double fir laths, and wrought nails showing on the face 4 in.	1 15 0 to 3 0 0 "
Do. showing 3 1/2 in.	2 5 0 "
Do., do. 3 in.	2 10 0 "
If with Staffs. tiles, add	0 10 0 "
On oak laths, add	0 3 5 "
Old plain tiling stripped off, new double fir laths, and re-lathing	1 2 0 "
Do., and allow 100 new tiles per square	1 7 0 to 1 8 9 "
Range or verge	0 0 2 1/2 per ft. run
Flats of two courses of plain tiles bedded in Portland cement	2 5 0 per square
Do. three do.	3 5 0 "
Rendering surface with cement	0 10 0 "
Terms Costa chimney pots 2 ft. high, set in cement	0 5 6 each
Do. 2 ft. 0 in. high do.	0 6 0 "
Do. 3 ft. high do.	0 12 0 "
If set in plain tiles and cement, add	0 0 9 "

BRICKLAYER AND TILER (continued)—

Red chimney pots and setting—

	In Mortar.	In Cement.
2 ft. high	4 0	5 0 each
3 ft. high	7 6	9 0 "
4 ft. high	9 0	11 0 "
5 ft. high	11 0	13 0 "
Glazed stoneware kitchen sinks—		
2 ft. 1 ft 5 in. x 4 1/2 ft.	0 9 0 each	
1 ft. 3 ft. x 4 1/2 ft.	1 1 0 "	
Any size sinks 2 ft. each way 3 in. to 3 0 0 "		
White glazed porcelain sinks—		
2 ft. x 1 ft. 4 in. and 1 1/2 in. deep	0 19 0 "	
3 ft. x 2 ft. do.	1 0 "	
4 ft. x 3 ft. do.	1 11 0 "	
Corner sinks, 1 ft. 9 in. each way, 6 in. deep	1 3 0 "	
Housemaid's sinks 2 ft. 6 in. x 1 ft. 6 in. x 1 1/2 in. deep	1 1 0 "	
White glazed butter's sinks—		
2 ft. 1 in. x 1 1/2 ft. 1 1/2 in.	1 15 0 "	
1 ft. 10 in. x 1 ft. 9 in. x 8 in.	1 7 0 "	
Grosses trap—		
20 in. x 19 in. x 12 in.	1 7 0 "	
24 in. x 19 in. x 16 in.	2 2 0 "	

SETTING SINKS.—ALL MATERIALS.

Registers up to 30 in.	0 6 0
Elkatic or hole covers ordered in cement at sides, do.	0 7 0
Self-sealing kitchen ranges, oven, and boiler—	
30 in.	1 5 0
36 in.	1 10 0
48 in.	2 0 0
Close fire kitcheners, including smith's attendance—	
Up to 48 in.	3 0 0 each
Up to 60 in.	4 0 0 "
Up to 72 in.	5 10 0 "
Washing copper, including all material and labour, the face of brickwork finished with a stone joint, and the top rendered with cement	
Up to 18 in. diameter	1 15 0
Up to 24 in. do.	2 10 0 "

MASON.

Portland close, including hoisting and setting 4 0 per ft. cube	
Bath stone do. do.	8 0
Sawing on Portland	0 7 1/2 per ft. sup.
Do. on Bath	0 3 0
Red and joint Portland	0 0 0
Do. Bath	0 0 0
Plain face Portland	0 10 0
Do. Bath	0 0 0
Moulding Portland	2 0 0
Do. Bath	1 0 0
Do. in cap, do. Portland	1 0 0
Do. do. Bath	1 0 0
Asphalt 4 in. on bed Portland	1 0 0
Do. do. Bath	1 1 0
1 1/2 in. Portland paving	1 1 0
2 in. Do.	2 3 0
3 in. Do.	3 5 0
6 in. x 3 in. Portland rubbed, weathered, suns, and throated and	2 0 0 per f. run
12 in. x 2 1/2 in. Do. do. and throated coping	4 0 0
6 in. x 6 in. Do. do. curb	1 0 0
Throating	1 1 0
Chamber narrow	1 1 0
Robats	1 1 0
Bank do.	0 2 0
Revetts	0 1 0
Blank joint	0 1 0
Joggle joint	1 1 0
Cutting and punning landing, 6 in.	1 1 0
Do. 8 in.	1 1 0

Sec. 1.—All Trades.]

PRICE BOOK.

MASON (continued)—

YORKSHIRE STONE.

8 in. Tooled one side landing, and all labour	1	d	per ft. sup.
Add for scantling sills as prime cost	0	2	"
7 in. x 2 1/2 in. Rubbed, weathered, and threaded sill	1	4	per ft. run
6 in. x 3 in. as back and sunk	1	6	"
7 in. x 6 in. Tooled curb	1	8	"
6 in. x 6 in. Do	2	3	"
9 in. x 6 in. Tooled step	2	3	"
12 in. x 6 in. Do	2	3	"
Rubbed, add	0	2	"
12 in. x 2 1/2 in. Tooled coping	1	0	"
2 in. Tooled paving	1	0	per ft. sup
2 in. Rubbed do	1	2	"
Mortise and lead	0	0	"
Iron dowels and mortises	0	8	"

KENTISH RAG STONE.

Walling	1	6	per yd. cube
Random coursed work	50	0	"

STONE WALLING.

Rough rubble walling	1	0	per yd. cube
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PAVING.

Granite paving 5 in. thick	9	8	per yd. sup.
Do. 9 in. thick	15	0	"

ASPHALT.

Damp course 1/2 in. thick	0	4	per ft. sup.
Do. 3 in.	0	6	"
Paving 1/2 in. thick	0	5	"
Do. 1 in.	0	7	"
Seymour asphalt, add	0	2	"
Tar paving, 3 in. thick	2	6	per yd. sup.
Wood block paving, about	10	0	"
Patent Victoria Stone 2 in. thick (sold) @ 10 to 11 p. ft. sup.			

SLATER.

Ladies' copper nailed	1	2	per sq.
Courtness	3	4	"
Duchess	0	0	"
Imperial	12	6	"
Wharfedale	17	0	"
William's ridge and roll	1	0	per ft. run
Hips and ridges, ordinary	1	2	"
3 in. slate slates, placed one side	1	0	per ft. sup.
1 1/2 in. Do.	1	6	"

CARPENTER AND JOINER.

Centring	0	4	per ft. sup
Do. to 4 in. soffits	0	6	per ft. run
Circular	0	9	"
Fit in wall plates and linels	2	0	per ft. cube
Do. framed in roofs, floors, and partitions	2	3	"
Do. do. beamed or trussed	3	0	"
Planing on air	0	0	per ft. sup.
Battening, 2 1/2 in. x 1 in., for elates	5	9	per sq.
Sound boarding and fillets	17	0	"
3 in. boarding for elates	10	0	"
1 in. ploughed and tongued boarding	27	0	"
Add for firrings, average	5	0	"
Rough fillet	0	1	per ft. run
Tilting	0	3	"
Herring-bone strutting	0	3	"
Sold	0	4	"
Roll for lead	0	2	"
Roofing felt	0	1	per ft. sup.
3 in. oaves or tier board	0	4	"
3 in. gutter board and framed batters	0	5	"
1 1/2 in. Do.	0	8	"
Lead dovetailed cressels	2	0	to 8 0 each
Lead cross-rebated doors	0	1	to 0 6
Oak fencing, 4 ft. elate pales with two arms (10 ft. 6 in. run rule and posts 0 ft. apart, fixed complete) 4 0 per rod of	0	0	0
Do. 6 ft.	0	0	0

CARPENTER AND JOINER (continued).—

2 in. Oak plank floor	1	0	per sq.
1 in. Yellow bottom flooring	2	0	"
1 in. do. do.	2	0	"
1 1/2 in. do. do. ploughed and tongued with hoop iron	5	0	"
3 in. x 0 in. square skirting ploughed to wall	0	1	per ft. 4
1 in. x 0 in. Tiers	0	7	"
1 in. x 1 1/2 in. moulded	0	7	"
2 in. Oval moulded fixed mashes	0	7	per ft. sup
Do. hung	0	8	"
Deal cased frames, oak sunk sills, and 2 in. deal moulded sashes double hung sills pulley, lines, and iron weights	1	4	per ft. sup.
2 in. rebated and moulded skylights	0	8	"
1 in. framed, ledged, and beaded door	0	6	"
1 in. Do. do.	0	9	"
2 in. four panel square door	0	9	to 0 10
Do. beaded butt and square door	0	10	"
Do. beaded, flush and	0	10	"
Do. moulded and square	0	11	"
Do. moulded both sides	1	0	"
Do. bevelled moulded	3	0	"
2 1/2 in. Do. do.	1	0	"
1 1/2 in. square framed both sides partition	0	8	"
2 in. moulded both sides	0	8	"
2 in. wrought one side lining	0	4	"
1 in. Do. and rebated	0	6	"
1 1/2 in. Do. and double rebated partition	0	8	"
1 1/2 in. Do. do. and double	0	10	"
beaded partition	0	10	"
2 in. wrought framed and splayed grounds	0	4	"
1 1/2 in. Do. and rounded window board	0	7	"
Do. and beaver	0	7	"
Chamfered fillet as architecture	0	2	per ft. run
Moulded architrave, 3 in. wide	0	3	"
Do. 4 in. wide (including mitres)	0	4	"
1 1/2 in. tongued and rounded mosing	0	2	"
1 1/2 in. angle fillet and mitre	0	2	"
2 in. square framed mahogany doors	4	0	per ft. sup.
2 in. moulded and square	4	4	"
Do. both sides	4	4	"
2 1/2 in. moulded and square	0	0	"
Do. both sides	5	8	"
3 in. deal matched and beaded or V jointed wall lining, in battens widths	17	6	per square
Add for baulking	2	6	"
If ploughed	4	0	"

IRONWORKER.

3 in. iron butts	1	2	per pair
4 in. Do.	1	3	"
3 in. iron rising	2	0	"
4 in. Do.	2	0	"
1 1/2 in. cross stannels	0	3	"
1 in. Do.	0	3	"

PRICE BOOK.

[Sec. I.—All Trades.]

IRONWORK (continued).—

2 in. cross bars	..	..	..	1 8	per pair
3 in. Do.	..	..	..	2 6	..
Japanned iron Cooker's easement fastening	..	..	..	9	each.
Brass Do.	..	..	..	1 2	..
16 in. Japanned iron easement stays	..	..	..	1 4	..
Brass easement stays	..	..	..	1 9	..
Tank's easement stays, 12 in. arm in iron	..	..	..	2 1	..
Do. Do.	..	..	..	1 1	..
5 in. cable hooks, iron (and add fixing)	..	..	..	0 4	..
Do. Do.	..	..	..	1 4	..
10 in. Do. iron Do.	..	..	..	1 6	..
Do. Do.	..	..	..	4 6	..
6 in. rim dead lock	..	..	..	3 3	..
8 in. Do.	..	..	..	3 1	..
6 1/2 in. rim lock and cast furniture	..	..	..	6 0	..
7 1/2 in. Do.	..	..	..	7 6	..
6 in. four-lever wine cellar lock	..	..	..	2 0	..
8 in. iron rim drawlock lock and brass furniture	..	..	..	7 6	..
9 in. Do.	..	..	..	0 0	..
6 in. two bolt mortise lock and furniture, 7 1/2 in. to 9 in. 3d. each	..	..	..	11 6	each
7 in. Do.	..	..	..	11 6	each
6 in. two-bolt four lever mortise lock	..	..	..	1 5	..
Half related, add	..	..	..	4 0	..
Full related, add	..	..	..	11 0	..
6 in. mortise drawlock lock	..	..	..	6 0	..
4 in. mortise deadlock	..	..	..	6 0	..
6 in. Do.	..	..	..	3 0	..
6 in. Japanned night latch	..	..	..	10 0	..
4 in. five guard brass latch	..	..	..	3 0	..
4 in. two bolt brass latch	..	..	..	1 0	..
Tank's patent door furniture, 4 1/2 in. 3d. per set, and upwards	..	..	..	0 6	each
4 in. iron barrel bolts	..	..	..	1 8	..
12 in. Do.	..	..	..	1 8	..
4 in. brass barrel bolts	..	..	..	6 4	..
12 in. Do.	..	..	..	0 10	..
4 in. brass flush bolts	..	..	..	2 6	..
12 in. Do.	..	..	..	2 0	per dozen
12 in. brass door lock	..	..	..	1 0	..
Norfolk thumb latch	..	..	..	3 0	..
Japanned iron barrel door chains	..	..	..	0 6 1/2	per foot
Greenwood draught excluder	..	..	..	0 6	..
1 in. iron picture rod, painted	..	..	..	0 7	..

SMITH AND FOUNDER

Belleville, from 4 1/2 and upwards per foot run. Allow for pattern	..	..	..	..	..
Tomb railings, from 3 1/2 to 30 in. per foot run	..	..	..	..	..
Guard rails and columns, from 8 in. to 10 in. per cwt.	..	..	..	..	..
Present prices of riveted girders, 4 in. 6 1/2, delivered in London	..	..	..	..	..
Built up girders, English iron, from 12 in. 6 1/2 to 14 in. depends on section and weight	..	..	..	..	..
King and Queen head brackets, panels, 4 in. 12 in. to 15 in. per cwt.	..	..	..	..	..
Chimney and bearing bars, per cwt. 18 in. to 20 in., fixed	..	..	..	..	..
Cast plates, 2 in. each, up to 1 1/2 in. or 1 3/4 in.	..	..	..	..	..
Beam weights, 1 in. 6 1/2 per cwt.	..	..	..	..	..
2 in. rain-water pipe, 6 1/2 per foot	..	..	..	..	..
4 in. Do.	..	..	..	..	..
8 in. head, 2 in. each and upwards, governed by style and pattern	..	..	..	..	..
4 in. head, 3 in. Do.	..	..	..	..	..
Shoes, 1 1/2 in. 3 in. and 1 1/2 in. 3 d. for 4 inch	..	..	..	..	..
Half round gutter, 3 1/2 in. 10 1/2 per yard, fixed	..	..	..	..	..
Do. 6 in. 1 in. 6 1/2 Do.	..	..	..	..	..
Moulds and angles, 1 in. 4 d. to 3 in. each	..	..	..	..	..
Bolts and nuts, 2 1/2 in. 8 d. per cwt.	..	..	..	..	..
Framed gratings, 2 1/2 in. to 2 1/2 per cwt., according to size	..	..	..	..	..
Square baluster, 2 1/2 in. per cwt.	..	..	..	..	..
Handrail and baluster, 2 1/2 per cwt.	..	..	..	..	..
Framed plate 2 1/2 in. to 5 in. 9 d. according to design	..	..	..	..	..
Guard bars, 2 1/2 in. per cwt.	..	..	..	..	..
Casements with middle bars, 2 1/2 in. per cwt.	..	..	..	..	..
Wrought iron casements, 2 1/2 in. to 3 in. per foot sup.	..	..	..	..	..
Wrought iron galvanized casements, 6 d. per cwt. to 10 d.	..	..	..	..	..
Copper hole doors and frames, 3 in. to 4 in. and 7 in. 6 d.	..	..	..	..	..
Roller iron joints, 9 in. per cwt.	..	..	..	..	..
Wrought iron girders, 12 in. per cwt.	..	..	..	..	..
Flush plates, 10 in. 6 d. to 12 in. per cwt.	..	..	..	..	..

SMITH AND FOUNDER (continued).—

Common elliptic stove, 4 1/2 per inch	..	..	..	..	..
Do. Do. with black wrought bars, 6 d. per inch	..	..	..	..	..
Round stove, 6 d. per inch	..	..	..	..	..
Knives grate, 30 in. 4 1/2 in. 4 1/2 in. 4 1/2 in.	..	..	..	..	..
Lemington bars, from 6 in. to 12 in. and 17 in. 6 d. each	..	..	..	..	..
Do. Do. with tile sides, up to 2 1/2	..	..	..	..	..
Dog grate, 15 in. 6 d. to 2 1/2	..	..	..	..	..
Kitchen range, 30 in. 2 1/2 in. 4 1/2 in. 2 1/2 in. each	..	..	..	..	..
Close fire oven and boiler range, 4 1/2 in. 2 1/2 in. 4 1/2 in. 2 1/2 in.	..	..	..	..	..

STEEL FIFTH A.

Galvanized iron manger, 5 ft. long	..	..	..	1 7 6	..
Do. 6 ft.	..	..	..	2 17 0	..
Do. Manger and rack	..	..	..	3 10 0	..
Patent loose box mules	..	..	..	0 1 3	per ft.
10 in. Horse pots	..	..	..	0 5 6	..
12 in. do.	..	..	..	0 8 6	..
Mane pots	..	..	..	5 0	to 7 6
Hayward's lights	..	..	..	6 0	to 10 6
2 in. Hot water trough pipes	..	..	..	0 1 0	per yd
4 in. Do.	..	..	..	0 7 6	..
Galvanized iron hot-water cisterns—	..	..	..	..	..
20 gallons	..	..	..	1 17 6	..
100 Do.	..	..	..	7 5 0	..

ZINC WORKER.

No. 14 gauge zinc	..	..	..	0 0 6	per ft. sup.
No. 16 do.	..	..	..	0 0 7 1/2	..
4 in. Gutter	..	..	..	0 0 8	per ft. run
6 in. Do.	..	..	..	0 1 2	..

RESURFICER.

Single stroke bell	..	..	..	13 0	to 1 7 0
Continuous	..	..	..	17 6	to 1 10 0
Wire gauge	..	..	..	17 6	to 1 7 0

PLASTERER

PLASTERING, per yard super. Labour and Materials.

Plaster or render one coat rough on brick	..	..	..	8 0	6
Do. and set with fine stuff	..	..	..	0 8	6
Do. two coats and set	..	..	..	0 10	0
Render, float, and set	..	..	..	1 0	0
Circular, add 3 d. per yard.	..	..	..	..	..
Lathing only with angle fir laths	..	..	..	0 6	0
Do. and plaster one coat	..	..	..	1 0	0
Do. Do. and set with fine stuff	..	..	..	1 4	0
Do. Do. gauged work	..	..	..	1 4	0
Do. Do. two coats and set	..	..	..	1 4	0
Do. Do. gauged work	..	..	..	1 6	0
Do. Do. plaster, float, and set partitions	..	..	..	1 0	0
Do. Do. Do. ceilings	..	..	..	1 7	0
Do. Do. Do. flowing soffits of stairs	..	..	..	3 d.	per foot
Circular, add 3 d. per yard.	..	..	..	..	..

If set with gauged putty, add	..	..	..	2 1	per yard
If lath and half, add	..	..	..	3 1/2	..
If double laths, add	..	..	..	4 1/2	..
Floors of lime and hair trowelled face	..	..	..	7	..
Do. on lath	..	..	..	7 1/2	..
Gauging with plaster each coat, add	..	..	..	2 1/2	..
Do. with cement, add	..	..	..	3 1/2	..
Quirk, per foot run	..	..	..	1 1	per foot
Arris	..	..	..	3 d.	..
Bead and double quirk	..	..	..	4 d.	..

BRICKS, per yard.

Stucco on brick, imitation of stone	..	..	..	1 0	..
If washed sand is used, add	..	..	..	0 3	0
Do. on lath	..	..	..	1 0	0
Trowelled stucco on brick	..	..	..	1 1	..
Do. on lath	..	..	..	1 1 1/2	..
Defaces and ceilings, add	..	..	..	0 2	0
Small grout and niches on brick, per foot sup. circular	..	..	..	0 1	..
Do. Do. on angle fir laths, circular	..	..	..	0 6	..
Do. Do. on double do.	..	..	..	0 7	..
Spherical on double fir laths	..	..	..	1 1	..
Jamb soffits and panels, narrow width on brick	..	..	..	0 4	..
Do. Do. Do. on lath	..	..	..	0 7	..

PAPERHANGER

	s.	d.
Preparing walls	0	4 per piece
Lining paper	0	6 "
Hanging paper	0	7 "
Common bed-room paper	2	0 "
Marble paper, from 1s. to 10s. per piece		
Sisal, from 8s. to 0s. per piece		
Crimson flock, from 8s. to 12s. per piece		
Hanging paper, from 8d. to 1s. 3d. per piece		

GLAZIER.

Crown glass, 4½d. to 8d. per foot	
Do. extra thick, 5½d. to 2s. per foot	
15 oz. sheet, 8d. to 1s. 1d. per foot	
21 oz. sheet, 4½d. to 2s. 6d. per foot	
30 oz. sheet, 8d. to 2s. 6d. per foot	
33 oz. sheet, 9d. to 3s. per foot	
36 oz. sheet, 11d. to 3s. 8d. per foot	
42 oz. sheet, 1s. 3d. to 4s. per foot	

PATENT PLATE GLASS.

Best, from 1s. 9d. to 5s. per foot super.	
Thirds, from 1s. 1d. to 3s. 6d. per foot super.	
Extra white do.—Best, from 2s. 6d. to 3s. 6d.; thirds, from 2s. 7d. to 3s. 6d. per foot super.	
Patent rolled rough plate, from 4d. to 1s. 2d. per foot super.	
Patent diamond and quarry rolled plate, from 7½d. to 1s. 1d. per foot super.	
Sheet glass tiles, from 6d. to 1s. 8d. per foot super.	
Rough plate tiles, from 8d. to 2s. 8d. per foot super.	
Domes, from 4s. 6d. to £20.	
Polished plate glass, from 1s. 6d. to 5s. per foot super.	
Bonding glass, from 1s. 8d. to 2s. per foot super.	
Bevelling, from 7d. to 2s. 5d. per foot run.	
Extra thick polished plate, from 4s. 2d. to 12s. per foot super.	
Rough cast plate glass, from 8d. to 4s. 6d. per foot super.	
Chequered polished plate glass, from 2s. 4d. to 4s. 6d. per foot super.	
Sealed glass, from 1s. 6d. to 2s. 5d. per foot super.	
Coloured glass, from 6d. to 8s. 6d. per foot super.	
Lead light, from 1s. 8d. to 3s. per foot super.	
Hendle's patent glassing, from 9d. per foot super.	
Halliwell's, do., from 6d. per foot super.	

NOTES, ADDITIONAL PRICES, AND QUOTATIONS.

(Continued on page 445.)

SECTION No. 2.—SCHEDULE FOR DWELLING HOUSE.

EXCAVATOR.

Dig and cart (according to distance) 2	0 to 4	0 per yd. cube
Do. Fast return, fill and run ..	1	0 "
Dry rubbish filled in and well rammed ..	1	0 "
Lime concrete as described in foundations ..	8	0 "
Do. 4 in. thick, levelled for paving ..	1	0 per yd. sup.
Do. 6 in. thick, levelled and finished with a smooth surface (as floor) ..	1	11 "

DRAIN.

4 in. Glazed stoneware socketed drain pipes, laid to a proper fall, pointed in well tempered clay, including digging trench for same, average 3 ft. deep, and filling in earth and ramming ..	0	8 per ft. run
6 in. Do. all as do. ..	0	10 "
4 in. Do. and drop digging or tunnelling in road (provision) ..	1	6 to 3 0 "
6 in. Do. all as do. ..	2	0 to 2 6 "
Extra to 4 in. Bands ..	1	0 each
Do. 6 in. ..	1	0 "
Do. 4 in. Joints ..	1	1 "
Do. 6 in. ..	1	8 "
4 in. Syphon traps and fixing ..	3	3 "

BRICKLAYER.

Reduced brickwork in mortar, including all rough cutting ..	0	0 per sq. sup.
Extra only on do. for being built in cement half-bricknogged partition in mortar, including timbers 2 ft. 3 in. apart ..	4	0 per yd. sup.
Half-brick trimmer arch in cement and pointing ..	0	5 per ft. sup.
Extra for rough relieving arches over lintels in cement ..	0	2 "
Do. for neatly axed flat arch ..	0	9 "
Fitch and sand damp course 3 in. thick, and laying in walls hot ..	0	4 "
Extra for fair face to brickwork and twice limewash ..	0	21 "
Hearts of doled surface of concrete bed ..	6	0 per yd. sup.
Rake, wedge, and point flashings in cement ..	0	1 per ft. run
Do. do. stopped do. ..	0	1 to 2 "
Casting and planing 3/4 in. stone landing in cement ..	0	3 "
Leave or cut chase in wall for pipes ..	0	2 "
Extra timbers cut and pinned in cement (depends on size) ..	0	4 to 0 7 "
Ends stone steps, do. do. and do. 0 4 to 0 7 ..	1	0 each
Frame, bed and point ..	1	0 "
Three lig 4 ..	1	0 "
Cast iron air-bricks, 9 in. x 6 in., and setting in walls and forming proper channels for same ..	1	0 "
Labour and materials, firebricks, do., setting greses to 3 ft. 3 in. openings, averaged ..	5	6 "
Do. do. Kitchen range to 3 ft. 6 in. openings ..	1	0 "
Flues, parge and core ..	1	0 "
Extra for rough arches over fire place openings ..	0	4 "
Terra cotta chimney pots, 9 ft. 6 in. high, set and decorated with plain tiles and cement ..	4	6 "
Chimney stacks, render in cement ..	1	0 "
20 Gallon Copper boiler, and setting in brickwork and fire bricks where exposed to heat. The outside to be rendered with cement and strong canvas, wrought iron door and frame, and strong furnace bars and damper complete ..	0	0 "

BEST FINISHED RED BRICKS.

Extra to facings, finished with a neat stack joint ..	0	9 1/2 per ft. sup.
Extra for relieving arch in do. in two half-brick ridges and pointing to match ..	0	6 "

BRICKLAYER (continued).—

Extra for cut and rubbed, and gauge segmental arch in do. and do. ..	1	4 per ft. sup.
Labour to fair cutting in facings ..	0	1 1/2 "
Do. do. circular do. ..	0	2 "
Extra labour to overselling one course ..	0	3 per ft. run
Do. do. three do. ..	0	5 "
Mitre to one ..	0	2 "
Mitre to three ..	0	6 "
Extra to chamfered plinth capping in cement ..	0	21 "
Mitre ..	0	2 "
Stopped ends ..	0	4 "
Labour and materials, to moulded course, one course high in cement ..	0	3 "
Mitre ..	0	4 1/2 each
Labour and materials label circular, one course high in cement ..	0	6 per ft. run

MASON.

(The stone to be free from all defects, and set on its natural quarry bed, and the gries to include for all cramps, &c.)

HAND YORK STONE AND FIXING

2 1/2 in. Rubbed landing scantling one way ..	1	7 per ft. sup.
Labour, rebated joint for 9 in. riser ..	0	2 per ft. run
Do. rank rabbet edge to 1/2 in. ..	0	2 1/2 "
9 x 4 Treated, sunk, weathered, throated, and grooved sill ..	1	5 "
12 x 4 Rubbed, sunk, weathered, and throated do. ..	2	0 "
Fair jointed ends to sills ..	3	0 each
10 x 1 1/2 in. Treated and back jointed step ..	1	0 per ft. run
1 1/2 x 2 1/2 in. Rubbed step ..	1	4 "
18 x 7 in. Do. do. solid ..	2	6 "
17 x 3 in. Rubbed and back jointed step ..	2	0 "
Fair jointed ends to steps ..	0	2 1/2 each
Fair ends to do. ..	0	6 "
4 x 2 in. Rubbed riser ..	0	7 1/2 per ft. run
Rubbed ends ..	0	2 each
Small corbels ..	0	9 "
3 in. Treated templates 12 x 9 in. ..	1	0 "
Do. 12 x 12 in. ..	1	3 "
Fixing chimney pieces, with all necessary iron cramps, &c., to 3 ft. 6 in. openings averaged ..	3	6 "

TILER.

Best Broadly tiles, laid with a 2 1/2 inch lap, bedded in mortar, cm, and including 2 1/2 x 1 in. deal battening for same ..	45	0 per sq. sup.
Do. (Tiling only for gutters) ..	2	0 per foot
Extra for double course of tiles at eaves in cement ..	0	2 per ft. run
Ornamental tile ridge, and setting in mortar and pointing in cement ..	1	2 "
Hip tiles made so proper pitch of roof and fixing ..	1	4 "
Valley do. do. ..	1	4 "
Cement fillet ..	0	2 "
Ornamental tile finials, p. 7a. Gd. each and fixing ..	8	6 each
Wrought iron ornamental hip ridge and fixing ..	1	8 "

CARPENTER, JOINER, AND IRONMONGER

(The prices include screw and fixing in the best manner.)

Centring to segmental roof ..	0	4 per ft. sup.
Turning piece 4 1/2 sqft ..	0	2 per ft. run
2 in. plates and bolts ..	0	10 per ft. cable
Fire framed ..	2	8 "
Do. and bolted together ..	2	8 "
Do. and do. and bolted out ..	2	8 "
Do. Wrought and framed ..	4	0 "
Planing or fir ..	0	2 per ft. sup.
1 inch Deal Her board ..	0	4 "
1 inch do. Gutter board and batten ..	0	2 1/2 "
1 1/2 inch Deal rough and framed ridge ..	0	2 1/2 "

PRICE BOOK.

[Sec. II.—DWELLING HOUSE.]

CARPENTERS, JOINERS, AND IRONWORKERS (continued)—

	s.	d.
Plugging walls	0	1 1/2 per ft. run
Fillet spiked on	0	1 1/2 "
Circular do.	0	1 1/2 "
Trailing fillet	0	1 1/2 "
Teaser-edge springer	0	1 1/2 "
1 Narrow gutter board and batten	0	3 "
2 x 2 Herringbone skirting to 6 inch joints	0	1 "
Brackening to 2 ft. 6 in. gut	0	7 1/2 "
Angle brackets to do.	1	4 each
Wrought and cut end to rafters	0	2 "
Allow for trussing joints, &c., for trap doors	1	6 "
Deal related drips	0	4 "
Deal fixing slips and building in	1	0 per doz
Fir wrought and framed carved braces out of 5 ft. x 4 ft. and 2 ft. 8 in. long grooved both edges	3	0 each
3 in. Deal wrought framed and cut brackets 1 ft. 6 in. high and 1 ft. 6 in. projection built into wall	3	0 "
1 in. White deal batten flooring laid straight, joints with splayed headings and mitred corners to hearths	17	6 per square
1 in. Red do., do., do., and do.	17	5 "
Baking, cutting and waste on do.	0	0 1/2 "
1 in. Square deal skirting 8 in. high, and grounds and backings plugged to wall and mitres, &c.	0	31 per ft. run
1 in. Deal moulded skirting, 12 in. high, and grounds and backings part plugged to wall	0	7 "
Mitres to do.	0	4 "
1 1/2 in. Moulded oiled scabbled faced skirting, &c., all as last	0	10 1/2 "
Do. circular	1	6 "
Mitres	0	6 "

WINDOWS IN DEAL.

1 1/2 in. Moulded casement, hung on butts prepared with beads to receive wire glass	0	6 per ft. sup.
2 in. Moulded fixed fanlight	0	7 "
2 in. Do. do. do. each with beads for glass	0	8 "
Deal casid frames, oak sunk, and weathered sills, and 2 in. Moulded sashes, double hung with brass axle pulleys, best patent white cord and iron weights, the top sash with moulded horns	1	3 "
Do., but the sashes fixed	1	0 "
Do. all as first, but Venetian 3 light, the centre double hung and the side-lights fixed	1	4 "

DOORS IN DEAL.

1 in. Proper hinged	0	6 "
1 1/2 in. Four panel moulded both sides	0	7 "
2 in. Four panel square	0	8 "
2 in. Do., moulded and square	0	13 "
2 in. Do., or two panel moulded both sides	0	11 "
2 in. Three panel, best, butt and square, the upper panel with sash bars prepared for 24 in.	1	0 "
2 in. Three panel moulded both sides door, the upper panel open and prepared for glazing with beads	1	1 "

FRAMINGS IN DEAL.

1 1/2 in. Moulded and square	0	8 "
1 in. Do., do.	0	5 "
1 in. Moulded both sides	0	10 "
2 in. Do., do.	1	0 "

LATHES IN DEAL. (Including backings)

6 in. Wrought one side	0	5 "
Do. lapped and beaded	0	7 "
Do. do., and on splay	0	7 1/2 "
Do. do. soffit, with splayed ends	0	7 "
in. Plain fambolings	0	3 1/2 "
in. Do., and cross tongue	0	5 "
in. Wrought, framed, and dovetailed carb	0	2 "

CARPENTERS, JOINERS, AND IRONWORKERS (continued)—

FITTINGS AND FITTINGS IN DEAL.

	s.	d.
1 in. Wrought one side, and V jointed batten boardings	35	0 per sq. sup.
1 in. Do. cross-lapped, tongued, and rounded window board and battens	0	6 per ft. sup
Noted and returned ends	0	2 1/2 each
1 in. Proper lapped cover and battens to dust bin, with flap in same, and water fillets	0	10 per ft. sup.
1 in. Miter clamped flap, and framed and beaded frame	0	8 "
1 in. Wrought both sides, and cross-tongued shelves and battens	0	6 "
1 in. Do., do., do. on strong brackets	7	3 1/2 "
1 in. Do. framed and cross-tongued, and battens	0	7 "
1 1/2 in. Wrought and cross-tongued W.C. seat and riser on, and including fir dovetailed battens (the seat to be so constructed that it may be easily removed)	0	8 "
1 1/2 in. Wrought both sides, framed and cross-tongued	0	8 "
1 1/2 in. Moulded and square upboard front and doors	0	8 "
1 1/2 in. Moulded and square upboard front and folding doors	0	10 "

LABOUR IN DEAL.

Rebate	0	0 1/2 "
Baking, cutting 3 in. and 1 in.	0	0 1/2 "
Circular cutting and scribing 3 in.	0	1 1/2 "
Rounded edge on 1 in.	0	1 "
Scribing 1 1/2 in. and 1 1/2 in.	0	1 1/2 "
Tragued and mitred angle 1 1/2 in.	0	4 per ft. run
Do. and beaded do. 1 1/2 in.	0	4 "

LABOUR AND MATERIALS IN DEAL.

Baking, cutting, and waste on 1 in.	0	6 1/2 "
Rounded window mousing	0	0 1/2 "
Mitres	0	15 "
Returned ends	0	2 1/2 "
3 in. Beaded capping	0	1 "
2 in. x 1 1/2 in. Door stop	0	0 1/2 "
3 in. x 1 1/2 in. do.	0	1 "
4 in. x 1 1/2 in. square skirtings and grounds &c. plugged	0	2 "
Mitres	0	1 1/2 "
Cornice	0	5 "
3 in. x 1 1/2 in. Wrought, framed and splayed grounds	0	12 "
4 in. x 1 1/2 in. Wrought window lining	0	2 1/2 "
Double rebated and moulded each bar	0	1 "
1 in. Deal rounded and tongued window mousing	0	2 1/2 "
Returned rounded ends	0	2 1/2 "
3 in. x 1 1/2 in. Beaded peg rail and plunging	0	4 "
Moulded weather-board fixed to doors	0	4 1/2 "
1 in. Beaded pipe casing, fixed with screws to and including grounds plugged to wall	0	8 "
1 1/2 in. x 1 1/2 in. Wrought and beaded, hanging splay	0	2 1/2 "
3 in. x 2 in. Fir wrought, and framed legs and battens	0	5 "
15 in. x 3 in. Wrought, framed and chamfered barge board	1	0 "
Mitred returned chamfered ends	0	1 0 each
1 in. x 3 in. Moulded fillet	0	1 per ft. run
Mitres	0	1 "
Moulding under window board	0	1 1/2 "
Mitres	0	1 "
Returned mitred ends	0	2 each
24 in. Moulded architrave and mitres	0	2 1/2 per ft. run
1 in. Do. do.	0	7 1/2 "
Do. (as first), birds mounted at back	0	7 1/2 "
Mitres to 3 in. x 1 1/2 in.	0	1 each
Moulding 4 in. wide as cornice	0	4 1/2 per ft. run
Mitres	0	2 each
Moulding out of 3 in. x 2 in. planted on	0	4 per ft. run

CARPENTER, JOINER, AND IRONWORKER (continued).—

Mitre	a. d.	
Mitre returned ends	0 14	per ft. run
Splayed ends	0 8	
Moulding out of 4 in. x 3 in. planed on ..	0 12	
Mitre	0 6	
Mitre	0 2	
Mitre returned ends	0 4 1/2	
Splayed ends	0 14	
Moulding out of 4 1/2 in. x 3 in. planed on ..	0 6	
Mitre	0 2	
Splayed ends	0 14	
Do. out of 7 in. x 3 in. planed on ..	0 10 1/2	
Mitre	0 4 1/2	
Splayed ends	0 3	
4 1/2 in. x 3 in. Fir, wrought, framed, rebated, and beaded frame	0 5 1/2	
4 in. x 3 in. Fir, wrought, framed, rebated, and moulded frame	0 6	
4 1/2 in. x 5 in. Do. do. do. ..	0 6 1/2	
4 1/2 in. x 3 in. Fir, wrought, framed, double rebated and double-beaded transom, do. ..	0 6	
4 in. x 3 in. Do. do. double moulded	0 11	
6 in. x 4 in. Fir, wrought, and framed beaver ..	0 7 1/2	
6 in. x 4 in. Fir, wrought, framed, and grooved studding	0 8	
Do. do. twice grooved	0 8 1/2	
Seat hole cut and dished	1 C	
Deal Dresser, 7 ft. long and 7 ft. high, with wrought, framed, and cut standards top, with moulded architecture, mitred round as cornice, three tiers of plate shelves with grooves, and bead nailed on, with large and small brass bolts fixed on edge of shelves, 1 1/2 in. deal wrought and cross-tongued top to lower part, with rounded corner on proper framed legs and drawers, three proper dovetailed drawers and black knob handles, 1 1/2 in. deal wrought cross-tongued, polished and beveled. Fix in kitchen where directed	24 10	
Beaded strips, 3 in. x 1 in. and 10 ft. long, plugged to wall for dish cover	2 0	each
3 in. Beaded bell board, 11 in. wide, plugged to wall	1 0	
1 1/2 in. Deal copper lid in two thicknesses, properly paged and with flash handle ..	3 6	
Small sliding door, with runner, plugged to wall of shut bin	8 0	
4 1/2 in. x 3 in. Oak, wrought, framed, oak and weathered sill	0 11	per ft. run
2 in. x 3 in. Oak, wrought and double chamfered carb set on brickwork	1 8	

HONOURS MASONRY AND FRENCH POLISHING.

1 in. Mortared clamped flap, and framed and beaded frame	2 0	per ft. sup
1 1/2 in. Wrought, framed, and cross-tongued W.G. oak, and riser on, including strong fir dovetailed beaver, the seat to be specially constructed according to drawings to be supplied	2 8	
1 1/2 in. Wrought and framed bath top ..	1 10	
Labour rounded edge 1 1/2 in.	0 2	per ft. run
Moulding tongue on	0 4 1/2	
3 in. x 4 in. Beaded skirting, plugged to walls and grounds, &c.	0 8	
Mitre	0 3	
Returned beaded ends	0 4	
2 in. x 6 in. Beaded skirting, with grounds &c., plugged to walls	0 10	
Mitre	0 4	
Returned beaded ends	0 4 1/2	
Seat hole cut and dished	1 0	each
Handle hole cut and beaded	1 0	
Hide through flap for handle so that it may be used when the flap is down	1 0	

CARPENTER, JOINER, AND IRONWORKER (continued).—

ATTEND PRIMER TO

W. G.'s	a. d.	
Bath	2 6	each
Lavatory	8 0	
	5 0	

STATES IN HAND YELLOW DEAL.

1 in. Wrought and beaded lining	0 5	per ft. sup
1 in. Wrought and cross-tongued landing in better width and beaver	0 7	
1 in. Banded treadend risers, planed, blocked, and braced on top, and including strong fir carriage	0 1 1/2	
1 in. Cross-tongued winders and strong fir carriage	1 0	
1 1/2 in. Moulded treads and 1 in. risers, all as before	1 0	
1 1/2 in. Moulded and square spandrel framing, measured nett	1 0	
Enter for forming and hanging door in do. 1 1/2 in. Moulded running	4 6	
1 1/2 in. Wrought and framed wall string ..	0 3	per ft. run
1 1/2 in. Do. do. and moulded, wrought to match skirting, 16 in. high ..	1 0	
2 in. Wrought and framed outer string, moulded capping to outer string, cut of 3 1/2 in. x 2 1/2 in.	0 7 1/2	
Turned and framed deal, balusters cut of 9 in. x 2 in.	0 2 1/2	
4 in. x 4 in. Turned deal newel, and size and varnish	1 0	
Ball terminals to do. do.	1 0	each
Do. pendants do. do.	0 6	
5 in. x 5 in. Newel, all as before	1 1	per ft. run
Terminal to do.	1 0	
Machinery moulded handrail cut of 4 in. x 3 in. and French polishing	2 6	
Notching ends windows	0 2	
Ends riser housed to string	0 1 1/2	
Do. tread and riser do.	0 6	
Do. winder and do. do.	0 6	
Circular ends to moulded tread and riser built up	3 0	each

IRONWORKER OF BEST DESCRIPTION AND BEAVERS AND FINISH.

2 in. Wrought Iron bolts	6 11	per pair
8 in. Do. do.	1 2	
5 in. Do. do.	1 4	
3 in. Do. do.	1 6	
1 in. Brass bolts	1 0	
18 in. Cross gaskets	8 0	
4 in. Iron barrel bolts	8 0	each
1 1/2 in. Do. do.	1 4	
1 1/2 in. Do. do.	1	
1 in. Do. do.	1	
4 in. Iron neck bolts	1	
Norfolk latches	2 0	
Yale night latch	1 0	
W.G. latch with private bolt	1 0	
Caphrod locks	4 0	
Iron rim locks and brass furniture ..	1	to 5
7 in. Dead lock	5	
7 in. Mortice lock	7 6	
10 in. Drawback lock, with ebony furniture ..	12 6	
Sets finger plates, p. c. 1/2 in. G. per set ..	3 0	
Do. do. p. c. 1/2 in. do.	11 9	
Sette lock furniture, p. c. 1/2 in. G. per set ..	3 0	
Do. do. p. c. 1/2 in. do.	3 6	
Brass door chain, 10 in.	7 6	
External octagon brass door knob	1 0	
Knocker, p. c. 1/2 in. do.	8 0	
Chain knob	1 0	
Brass do.	1 6	
Do. Turnbuckle fastenings	0 9	
Hopkinson's knob do. p. c. 1/2 in. ..	1 2	
Do. do. p. c. 1/2 in. do.	2 3	

PRICE BOOK.

[Sec. II.—DWELLING HOUSE.]

CARPENTER, JOINER AND IRONWORKER (continued)—

Patent self fastening window lifts	1 3 each
Brass pull down handles to sashes	1 1
Dress pipe with china knobs	0 5
Galvanized mess hooks	1 6 per doz.

STUCCO.

Calvarnised iron tongue and grooves in oak ..	0 14 per ft. run
Zinc wire gauge and fixing in cement ..	0 6 per ft. sup.
Iron dowels in mortices in stone and fir ..	0 6 each

FOUNDER AND SMITH.

CAST IRON AND IRON.

4 in. Ogee moulded cast gutter, and proper brackets and red lead joints	0 8 per ft. run
Stopped ends	0 3 each
Miter	1 3 "
Obtuse do.	1 0 "
Chutes	1 6 "
4 in. Diameter rain-water pipe, and bands and red lead joints, and securely nailing ..	0 9 per ft. run
Extra for swanneck bands, about	2 6 "
2 in. Galvanised iron pipe and fixing	0 9 "
Extra for swanneck bands	2 0 "

WROUGHT IRON AND FIXING.

Chimney bars	20 0 per cent.
Bolts	28 0 "
Sticks, and fixing with bolts to wall plates 80 3 "	
Stays and bolts	80 0 "

PLASTERER.

Render, float and set walls	0 10 peryd. sup.
Lath, plaster, float and set (single laths) partitions	1 1 "
Lath and counter lath	1 11 "
Render, float and finish, with Keene's cement on walls	2 3 "
Lath, plaster, finished rough stucco in Portland cement	1 8 "
All as do. in panes measured all over	2 0 "
Lath, plaster, float, set, and twice white wash	1 5 "
Lath, plaster, float in plaster	0 6 peryd. run
Mitre to 2 ft. 6 in. girt	1 6 each
Stopped ends do.	1 0 "
Plaster moulded cornice 3 in. girt, and twice white wash	0 7 peryd. run
Do. circular	1 0 "
Mitre	1 0 each
Plaster moulded cornice 20 in. girt, and once 3 in. enrichment, and twice white wash ..	1 10 peryd. run
Do. circular	1 0 each
Mitre	1 0 each
Plaster returned stopped ends	0 5 "
Cornice at least, but with two enrich. vots ..	2 3 peryd. run
Mitre	1 0 each
Portland cement square skirting 4 in. high ..	0 3 per ft. run
Mitre	0 2 each
Portland cement flush headed do. 1 in. high ..	0 6 per ft. run
Mitre	0 2 each
Keene's cement angle and arcs	0 24 per ft. run
Do. rounded angle	0 4 "
Enamelled tile laying, p. a. 10a. 6d. per yard sup., laid, bedded, and pointed in cement ..	13 0 peryd. sup.

PLUMBER.

[The Prices include Wall Hooks, &c.]

Milled lead and labour on roofs	2 0 per cent.
Extra to forming secret gutter at side of chimneys	0 6 per ft. run
Open copper nailing	1 2 "
Close	1 2 "
Extra to drips in gutter	1 0 "
2 in. Brass ferrule and fixing	1 2 0

PUMPS (continued)—

1 in. Strong lead service pipe and fixing, with all necessary hooks, bands, joints, &c. ..	0 1 or ft. run
2 in. do., all as do., and weighing 22 lbs. per yd. ..	0 8 "
2 in. Do. as provided, including digging trench, and laying and filling in	1 0 "
1 in. Strong lead service pipe and hooks, bands, joints, &c., and fixing	1 4 "
1 in. Lead waste pipe and do., do.	1 0 "
1 in. Wrought iron galvanised pipes and joints, elbow bands, &c., and fixing complete	0 6 "
2 in. Do. do. do. do.	0 9 "
1 in. Do. do. do. do.	1 2 "
4 in. Cast iron soil pipe with red lead joints, and made air tight and fixing	1 0 "
End do. made good to drain	1 0 "
2 in. Zinc ventilating pipe and fixing, including a. l. joints	0 4 1 "
End made good to soil pipe	0 6 each
Boiler joint to 4 in. pipe extra	1 2 "
2 in. do. do.	1 2 "
Piece 1 1/2 lead waste pipe about 6 ft. long and fixing	5 6
Do. 1 1/2 in. lead waste pipe about 6 ft. long with one end soldered to sink	7 6
Do. do. do. about 6 ft. long, with one end soldered to lavatory	8 6
Piece 4 in. soldered soil pipe out of 7 lbs. lead about 6 ft. long, including all bands and joints to connect W. C. apparatus to cast iron soil pipe	21 0
Piece 2 in. wrought iron pipe about 8 ft. long, jointed each end to connect cistern	5 0
2 in. Brass fly valve and unions, secured for iron and fixing	5 0
1 in. Do. do. do. do. do. do.	1 0
2 in. Brass screw-down hot cocks, with joints and fixing	6 9
2 in. Do. high pressure stop cocks, with key and do. and do.	7 9
2 in. Do. do. ball valve and copper ball and do. do.	7 5
2 in. Brass hot water lever handle tap, secured for iron and fixing	7 0
Shutter's patent lavatory top, with basin fitted with plugs, washer chain and taps, p. a. C2 and fix ing	23 10 0
Shutter's patent Brassone trapless closet, and fixing complete	24
Cistern pan W. C. apparatus, p. a. 8a., and fitting in brickwork and making good to drain	10 6
Water waste preventer, p. a. 30a., and allow for profit, carriage and fixing	10 0
Do. hot with brass chain and ring handle ..	10 0
Galvanised wrought iron cistern to contain 200 gallons, and fixing on and including proper beams	15 0
Do. do. do. hot water do., to contain 70 gallons, and do. do.	23 10 0
Holes drilled in casters	0 1
Bath with valves labelled H., C., & W., and fixings (p. a. 20)	27 0 0
No. 16 gauge zinc safe	0 8 per ft. sup.
Brass angles	0 4
2 1/2 in. brass grating and soldering	1 0
Piece 1 1/2 in. lead waste pipe about 2 ft. long, soldered both ends	0 6

GLAZIER.

[The glass to be of the best description, free from specks, bubbles, winding, &c., and well putted and best putted.]	
Best 21 oz. Sashed sheet glass, and glazing in ordinary squares	0 6 per ft. sup.
Best British polished plate glass, and glazing in squares not exceeding 12 ft. super ..	2 4 "
Lead quarry glazing, p. a. 2a. per foot	2 3 "

Sec. II.—DWELLING HOUSE.]

PRICE BOOK.

PAINTER (continued)—		s	d
Down 1/2 squares	2 6	per dozen	
Down 1/4 squares	0	"	
Casement	1 3	each	
Fanlight	0 9	"	
Large sash light	10 0	"	
Drawer	7 6	"	
Brackets	1 0	"	
Chimney pieces	8 6	"	
Four oiled, special design	4 0	"	
Four oiled, parti-colours	1 9	per yd. super.	
Frames	9 4	each	
Squares	2 11	per dozen	
Large do.	3 6	"	
Chimney piece, special design	8 0	each	
Four oiled and varnish	1 4	per yd. super.	
Skirting and string	0 2 1/2	per ft. ran	
Shelf edge	0 1 1/2	"	

PAINTER (continued)—		s	d
Door	0 1 1/2	per ft. ran	
Frames	2 8	each	
Large do.	3 4	"	
Sash squares	3 4	per dozen	
Large do.	4 0	"	
Fanlights	1 0	each	
Four and stippled varnish on reveal	1 3	per ft. ran	
Four parti-colours and varnish	1 0	per ft. super.	
Shelf edge	0 1 1/2	per ft. ran	
Skirting	0 3	"	
Fanlight	1 1	each	
Chimney piece and over mantel, special design	7 6	"	
Cleareole and white ceilings	0 2	per yd. super.	
Do. to cornice	0 0 1/2	per ft. ran	
Do. to centre flowers	1 0	each	
Distemper	0 3	per yd. super.	

SECTION No. 8.—SCHEDULE FOR A CHURCH.

EXCAVATOR AND BRICKLAYER.

The concrete to be composed of six parts of good gravel and one of the best English Portland Cement.

The bricks to be the best hard square well burnt stock bricks, samples to be approved.

The mortar to be composed of clean sharp sand and best stone lime, in the proportion of three of sand to one of lime.

	s	d
Dig earth from surface and deposits on site where directed	1 0	per yd. cube
Do. and do. from basement not exceeding 8 ft. deep	0 10	"
Do. and do. from do. below do.	1 1	"
Do. and do. from trenches	1 0	"
Do. and do. from do. below basement	1 3	"
Do. and do. from do. a part return, fill in and ram	1 5	"
Cement concrete as described in foundations	1 6	"
Do. 8 in. thick under paving	8 6	"
Do. 8 in. thick floored with cement as paving		
If done in one operation	3 0	"
Do. 9 in. thick, filled in between rolled iron joists	3 9	"

(Bricks assumed to cost 35s. per Thousand delivered.)

Reduced stock brickwork in mortar, including rough cutting	£12 10	per 100
Half brick wall in cement	0 7	per ft. sup.
Do. trimmer arch do.	0 6	"
Fair cut weathering in stocks	5 1/2	"
Do. on internal brick facings to splayed jambs to form aqueducts, and extra value of bricks	0 8	"
Extra rough work facings and pointing, with a coat of wash at the work proceeds	0 1	"
Extra to f. ng with white bricks, from Darnley, of uniform colour, laid Flemish bond, and furnished with a neat stream joint, the colour of the mortar, to be approved by the Architect	0 2 1/2	"
Extra do. circular to reveals	0 5	"
Do. to neatly axed segmental arches, in stocks and pointing	0 5	"
Do. to do. Gothic pointed in half brick rings	1 0	"

	s	d
Extra to flat pointed roughly axed arch in openings with splayed reveals	0 8	per ft. sup.
Do. to circular arches	0 10	"
Do. to do. box with splayed reveals	1 0	"
Do. to cut and rubbed Gothic pointed gauged arch, in white bricks and pointing	1 6	"
Do. to circular do.	2 0	"
Do. to Gothic pointed do. but in splayed reveals	1 9	"
Do. to cut and rubbed Gothic arches, in white moulded bricks set in cement	2 0	"
Damp course 3 in. thick of pitch and tar, a small 5 lb. of Portland cement to be laid next face of wall	0 3 1/2	"
Portland cement rendering	2 3	per yd. sup.
Do. weathering	6 4	per ft. sup.
Extra to fair face of brickwork and twice time white	0 2 1/2	per yd. sup.
6 in. Red and buff Staffordshire tiles, bedded and pointed in cement, including Portland cement ground	6 0	"
Encaustic tile paving, p. a. 10s. per yard superficial, and laying, including cement ground	15 0	"
Encaustic tile lining to wall, p. a. 10s. per yard super, and allow for carriage, profit, and fitting	16 0	"
Cutting and waste on do.	0 4	per ft. ran
Do. to its base of columns	0 6	"
Carved cutting and waste to fit moldings	0 9	"
Raking, cutting, and waste, and forming mitre pointed angle to do.	1 0	"
Fair cutting in facings	0 1 1/2	"
Do. circular over arches, do.	0 2 1/2	"
Do. do. to fit splayed reveals	0 3	"
Fair cut chamfer 8 in. wide to jambs	0 6	"
No. 4 cornice	0 6	"
No. 4 moulded stops	1 0	"
Extra to rough arch over lintel	0 3	"
Do. do. over chimney bar	0 3	"
Do. do. Gothic arch in half brick wall in cement	0 4	"
Do. to 1 1/2 in. diameter shaft beaded angle in white facing	0 5	"

ERECTOR AND BUCKLE (continued)—

	a.	d.
Extra to 1½ in diameter staff-headed angle in white facing, circular	0	7½ per ft. run
Apex mitre	0	7½ per numb.
Stopped ends	0	6 "
Extra to forming band in white facing 3 in. circular over arches	0	3 per ft. run
Apex mitre	0	4 per numb.
Extra to chamfered bevel in lateral facings to sill	0	4 per ft. run
Stopped ends	0	4 per numb.
Epaved stone brick on edge nil in cement ..	0	3½ per ft. run
Ends stone steps, cut and panned	1	0 each
Stone treads and risers do.	1	0 "
Frames bedded and pointed in lime and hair mortar, the reveals screeded, say containing 20 ft.	5	0 "
Flues corbel and pargeoted	1	0 "
Terra Cotta flue, 25c. p. o., and allow for carriage, profit, and fixing	10	0 "

WALLER.

English rag wall 12 in. thick, finished fair, both sides	1	0 per ft. sup.
Extra to facings in Kentish rag random rubble, with one binder to every yard super, all good sound stones, with most cement joint	0	9 per yd. sup.
Extra on facings to Gothic pointed face arches and pointing	1	0 per ft. sup.
Extra on do. to semi-circular do. and do. ..	3	3 "
Labour fair cutting in facings circular over arches	0	4 per ft. run
Do. do. but taking to gables	0	3 "
Ends treads cut and pinned and made good to in facings	1	0 per numb.

MASON.

The whole of the stone to be of the best quality Bath Stone, free from all defects, laid on its natural quarry bed, and to include all slate, covelets, and cement in setting.

BURN STONE.

Stone and labour in plain bands, do., and hoisting and setting	4	0 per ft. curb
Do. and do. in sunk bands and do.	4	3 "
Do. and do. in quoins worked fair on two faces and do.	4	3½ "
Do. and do. in do. (and hoisting and setting over 40 ft.)	4	3½ "
Do. and do. in quoins worked fair three faces and do.	4	3 "
Do. and do. in quoins sunk fair two faces ..	3	0 "
Do. and do. in sunk weathering (and do.) ..	4	11 "
Do. and do. in chamfered string, plinth capping, do., and do.	4	6 "
Do. and do. in do., but circular and do. ..	5	5 "
Do. and do. in twice chamfered reveals and do.	4	2 "
Stone and labour in sunk and chamfered buttress weathering and hoisting and setting	4	2 "
Do. and do. in twice chamfered arch stones and do.	4	0 "
Do. and do. in arched stones and chamfered tracery and do.	7	6 "
Do. and do. in three times chamfered reveals ..	5	0 "
Do. and do. in four times chamfered mullions and do.	5	3 "
Do. and do. in sunk and stopped chamfered sill and do.	4	0 "
Do. and do. in sunk and three times do. sill and do.	6	0 "
Do. and do. in sunk panel with trefoil head and do.	5	5 "
Do. and do. in morticed beams and do. ..	5	3 "
Do. and do. in sunk and morticed do. and do. ..	5	0 "
Do. and do. in do. with octagonal plumb worked on and do.	6	0 "

MASON (continued)—

	a.	d.
Stone and labour in moulded labels over circular windows and do.	5	0 per ft. curb
Do. and do. in sunk and moulded chimney cap (and hoisting and setting over 40 ft.) ..	5	6 "
Do. and do. in do. (and hoisting and setting over 50 ft.)	5	9 "
Do. and do. in sunk and moulded circular band to cluster of columns and do. ..	6	0 "
Stone and labour in sunk and moulded circular caps to cluster of columns and hoisting and setting	6	0 "
Do. and do. in sunk circular shafts to cluster columns, do., and do.	5	0 "
Do. and do. in sunk and moulded corbel bedded for carrying and do.	5	6 "
Do. and do. in sunk and moulded caps do. and do.	5	6 "
Do. and do. in moulded corbels with portion of two 3 in. diameter columns worked on and do. and do.	6	0 "
Do. and do. in pilasters to drop arch with 3 in. diameter columns worked on angles with crochets between	7	0 "
Burning in lead flashings to stone	0	4 per ft. run
Groove for lead lights and pointing in with cement	0	4 "
Circular do. for do. and do.	0	6 "
Stepped grooves in sills and holes for corded section	0	4 "
Stopped ends to do.	0	1½ each
8 in. x 6 in. Stone and labour in double played coping cut in cement, including joint	2	0 per ft. run
Angle	0	0 "
Fair returned and	0	9 "
Stone and labour 3 in. diameter turned column shaft	4	6 each
Do 5 in. dia. do.	5	0 "
Do 10 in. x 4 in. coping worked fair, chamfered both edges, including joints, cramps, do.	2	4 per ft. run
Do. do. and hoisting and fixing over 40 ft. ..	2	6 "
Stone and labour in apex and flume, cut of 9 ft. x 7 ft. 6 in., 2 3 ft. chamfered and hoisted for carrying and hoisting (and setting over 40 ft.)	10	0 per number
Do. and do. in do., but 8 ft. x 1 ft. x 8 ft. not worked at back, but built into wall and do.	4	0 "
Do. and do. bond stones cut of 1 ft. 6 in. x 1 ft. 3 in. x 1 ft. 8 in. sunk and chamfered to form a part of coping (and do.) ..	15	0 "
Do. and do. but 2 ft. 3 in. x 1 ft. 3 in. x 1 ft. 4 in. (and do.)	17	0 "
Do. and do., but 2 ft. 6 in. x 1 ft. 3 in. x 1 ft. 2 in. (and do.)	17	0 "
Do. and do. but 1 ft. 6 in. x 1 ft. x 1 ft. 8 in. built into wall (and do.)	12	0 "
Do. and do. in bond stones 1 ft. 4 in. x 1 ft. 3 in. x 1 ft. 8 in. (and hoisting over 12 ft.)	13	0 "
Do. and do. in do. 1 ft. 6 in. x 1 ft. 3 in. x 1 ft. 6 in. (and do.)	11	0 "
Do. and do. in do. 1 ft. 6 in. x 1 ft. 3 in. x 2 ft. (and do.)	17	6 "
Stone and labour in knucklers cut of 2 ft. 9 in. x 1 ft. 5 in. x 1 ft. 6 in. sunk and chamfered to form a part of coping wall returned moulded chamfered end and hoisting do.	30	0 "
Do. and do. in do. 2 ft. 9 in. x 1 ft. 4 in. x 2 ft. 6 in. and do.	25	0 "
Do. and do. in summer stone 1 ft. 4 in. x 8 in. x 1 ft. 9 in. worked fair on face and one side, and built into wall, and do. ..	10	6 "
Do. and do. in do. worked fair on face and both sides, and do.	12	0 "

Sec. III.—Church.]

PRICE BOOK.

MASON (continued)	s. d.
Stone and labour in summer stone 1 ft 2 in x 9 ft. x 1 ft. 10 in. and do.	8 6 per number
Do. and do in corbel 1 ft 4 in. x 9 in. 1 ft. moulded on front, worked fair on side, and built into wall, and bolting	8 6 "
Do. and do in do, but worked fair on both sides	5 6 "
YORKSHIRE STONE.	
2 in. Ribbed hearths	1 0 per ft. sup.
2 1/2 in. Tooled paving	1 0 "
4 in. Tool-1 threshold, slightly chamfered on edge	1 0 "
Back joint on 4 in.	0 2 1/2 per ft. run
Pair toolled edge on 4 in.	0 2 1/2 "
4 in. x 2 in. Toolled riser	0 5 "
18 in. x 2 1/2 in. Toolled treads, slightly chamfered on front edge	1 4 "
19 in. x 4 in. toolled threshold back-jointed and do.	2 4 "
9 in. x 6 in. Toolled solid step, and do.	1 10 "
9 in. x 6 in. Do. do., scantling, and do.	2 0 "
Wells ends	0 4 per number
12 in. x 4 in. Ribbed do.	2 3 per ft. run
Perforations in 2 1/2 in. for coal plate	3 6 per number
Mortices for iron dowels and cement	0 3 "
Toolled templates 12 in. x 12 in. x 4 in. thick, set in cement	1 2 "
12 in. x 8 in. Portland stone solid steps	3 6 per ft. run
Do, but back jointed	3 2 "
Ends housed	1 0 each

TILER.

Best Broseley tiling laid in patent manner, each tile matted with three stout nails	37 6 per square
Pale cutting to verge	0 2 1/2 per ft. run
Cement filling	0 2 1/2 "
Extra to double course tiles at eaves	0 3 "
Cooper's red tile ridge	1 3 "
Do., and setting in cement	1 8 "
Purpose made slip tiles	1 6 "
Valley tiles	1 6 "
Wrought iron hip hooks	2 3 each

CARPENTER

Wood work of roof to be stained before boiled oil is rubbed in	
Chimney to concrete floor	15 0 per square
Do. to segmental apertures	6 4 per ft. sup.
Do. to Gothic pointed do.	0 6 "
Do. to circular do.	0 6 "
Do. to East pointed do. with epoxyd reveals	0 4 1/2 "
Do. to circular do. with do.	0 4 1/2 "
Do. to screens	0 4 1/2 "
Chimney to Gothic pointed apertures 4 1/2 in. soffit	0 4 1/2 per ft. run
Do. to circular do. do.	1 0 "
Centres for Gothic pointed arches 4 1/2 in. soffit and 8 ft. 6 in. around	3 0 each
Do. for do. 9 in. soffit, and 8 ft. 8 in. do.	4 0 "
Do. for do., do., and 6 ft. 6 in. do.	6 0 "
Do. for do., with moulded soffit, 2 ft. 8 in. soffit, 8 ft. wide and 4 ft. 6 in. high	22 0 "
Do. for do., but 11 ft. 2 in. wide and 7 ft. 6 in. high	25 0 "
Do. for do. 2 ft. x in. soffit, 20 ft. 2 in. wide, and 8 ft. 9 in. high	27 10 "
Fit to listels, do.	1 10 per ft. cube
Fit to ground joists, do.	2 0 "
Fit framed in roofs, do.	2 3 "
Fit framed in roof trusses	3 8 "
Flanking on Fit	0 8 per ft. sup.
2 in. Wrought one side and V jointed boarding	2 0 per square
1 in. Do. fascia and baskings	0 4 per ft. sup.
1 1/2 in. Do. do.	0 5 "
Do. sawn roof boarding for tiles	0 per square

CARPENTER (continued).

1 1/2 in. wrought one side and V jointed boarding	3 6 per square
1 1/2 in. sawn and framed ridge	0 2 1/2 per ft. sup.
Do. wrought and splayed saws board	0 5 "
Ironclad roofing felt, and lagging and allow for laps, do.	7 6 per square
Labour rough splay 2 in. wide	0 0 1/2 per ft. run
Do. splayed edge on 1 1/2 in.	9 1 1/2 "
Do. working 1 in.	9 1 1/2 "
Do. raking, cutting, and waste on 2 in. V jointed boarding	0 1 "
6 in. x 1 1/2 in. Wrought	0 2 "
Strong bracing bone strutting to 3 in. joists	0 4 "
Moulding out of 3 in. x 5 in.	0 3 1/2 "
Naves	0 2 each
Do. on splay	0 4 "
Do. out of 6 in. x 3 in.	0 9 per ft. run
Housings	0 3 each
Do. on splay	0 4 1/2 "
Do. out of 4 1/2 in. x 4 in.	0 7 1/2 per ft. run
Housings	0 2 1/2 each
Do. on splay	0 4 "

JOINER AND IRONMONGER.

4 1/2 in. x 8 in. Fir wrought framed, rebated, and chamfered frame	0 6 per ft. run.
Do. do., but circular to Gothic head, including layed heading joints	1 0 "
Do. transoms to do.	0 10 1/2 "
1 1/2 in. Yellow battens ploughed and tongued with hoop iron floor, laid with splayed headings	24 6 per square
Do. and bangers	0 5 1/2 per ft. sup.
Notchings in do.	0 2 each
Moulded skirting 6 in. high, and groups and baskings ploughed to walls	0 6 1/2 per ft. run
Mitre	0 4 each
Housing	0 2 1/2 "
1 in. Ledged and beased matched and V jointed door	0 7 1/2 per ft. sup.
1 1/2 in. Framed, ledged, and beased door covered with 1 in. tongued and V jointed boarding, with Gothic head, measured square	0 10 "
2 in. Framed, ledged, and beased doors covered with 1 in. matched and V jointed battens, with Gothic pointed heads, measured square	1 0 "
2 in. Swing doors in two panels each leaf, upper panels open for glass including heads	1 0 "
1 in. Wrought, rounded, and cross-grained window board, tongued to oak and bangers	0 7 "
1 1/2 in. Matched and V jointed boarding	17 6 per square
1 in. Wrought one side riser	9 4 1/2 per ft. sup.
1 in. Wrought one side, and beased fascia	0 8 "
2 1/2 in. x 1 1/2 in. Deal, double chamfered fillet, mitred as architrave	0 8 per ft. run
Do. circular	0 8 "
Apex mitres	0 1 1/2 each
Intersection of circular with straight	0 1 1/2 "
2 in. x 1 1/2 in. Wrought hanging stile	0 2 per ft. run
2 in. x 1 1/2 in. Wrought, and rounded nosing tongued on	0 4 "
6 in. x 1 1/2 in. Do. do.	0 4 "
6 in. x 1 1/2 in. Wrought large board	0 3 "
Splayed ends	0 3 "
Wroughts and end ends	0 3 "
6 in. x 1 1/2 in. Wrought and rounded both edges, jamb lining and baskings	0 4 "
6 in. x 2 in. Do. do.	0 6 1/2 "
6 in. x 2 in. Do. do., do. circular, including keyed heading joints	1 8 "
Ends shrubbed to door	0 4 "
Moulding, tongued on under window board	0 8 "
Returned moulded ends	0 8 "
Do 8 in. x 3 in. planted on	0 2 1/2 "
Limbs	0 8 "

PRICE BOOK.

[Sec. III.—CHURCH.

JOINER AND IRONMONGERY (continued)—

	s	d.
Mitre	0	1 1/2 each
In. 6 in. x 3 in. do.	0	8 per ft. run
Housings	0	3 each
Mitre	0	3 "
Notched and returned rounded end to 1 in. window sash	0	3 "

IRON, NAIL, AND FINE IRON.

1 in. W.C. seat and riser on, and including strong bearers	1	10 per ft. sup.
1 in. Wrought flap and framed and beaded frame	8	4 "
Labour rounded nosing on 1 in.	0	1 1/2 per ft. run
1/4 in. Wrought and chamfered skirting 6 in. high, plugged to walls	0	4 "
Tongued angles	0	4 each
Pair sills	0	4 "
Rounded corners	0	2 "
Seat hole cut and dished	0	2 "
Extra to work, add rate screwed to remove easily	2	0 "

BRASS, DEAL.

1 1/2 in. Wrought bands and 1 in. riser, glazed, blocked, and bruckated on, and including strong or carriage	1	0 per ft. sup.
1 1/2 in. Wrought measured net	1	2 "
1 in. Wrought riser	0	4 "
1 1/2 in. Wrought and chamfered wall string plugged to wall	0	7 per ft. run
Do Ramped	0	10 "
Tongued angles	0	4 each
Ends boxed	0	4 "
2 1/2 in. x 3 in. Wrought and rounded handrail	0	8 per ft. run
3/8 in. x 1/2 in. Wrought, framed, and chamfered novel	0	4 "
Ends, bands and risers boxed	0	4 each
Do, risers only do	0	2 "
Do, winders do	0	1 1/2 "
Notchings	0	2 "

SITTING—Deal.

1 in. Wrought both sides	0	8 per ft. sup.
1 1/2 in. Wrought both sides and cross-tongued seats	0	7 "
2 in. Bead flush and square seat back, the framing stopped chamfered, the panels filled in with 1 in. V jointed battens	0	11 "
Labour groove	0	01 per ft. run
Do Rounded edge on 1 1/2 in.	0	1 1/2 "
Do, played rebate	0	1 1/2 "
Do Working head and two quirkers, 8 in. girth	0	1 1/2 "
2 in. x 2 in. Wrought bat lath	0	1 1/2 "
1/4 in. x 5 in. Wrought all round and tongued back board and rounded edge	0	3 1/2 "
Rounded corners to do	0	4 each
Ends b used	0	2 1/2 "
Ends of seat back boxed to seat ends	0	7 "
Do of seats housed to do	0	1 1/2 "
Do of seats fixed on splay	0	4 1/2 "
Seat bearers housed to seats	0	4 "
Wrought bearers 2 1/2 x 3 and 4 in. long	0	0 "
1 1/2 in. Wrought and cut brackets, 4 in. x 5 in.	0	6 "
1 1/2 in. Wrought both sides seat bearers, 10 in. x 14 in. doubled chamfered at back	1	6 "
Seat ends 2 1/2 in. thick and 36 in. high, wrought both sides, cut to shape and framed to floor	8	6 "

OAK.

4 1/2 in. x 8 in. Wrought framed and weathered sill	1	1 per ft. run
4 1/2 in. x 4 in. Moulded and French polished	2	9 "
Trunk no end	2	3 each
Extra to piece of do, hinged with b a e back hinge	1	6 "

IRONMONGERY IN CHURCH, S. AND ST. PETER.

Pairs 2 1/2 in. butt hinges	2	4 each
Do. 3 1/2 in. Do.	1	9 each
Do. 4 in. Do.	1	8 "
Do. 6 in. Do.	1	6 "
Do. 14 in. cross pinets	1	0 "
Sets Smith's single action swing hinges and oil	2	0 "
Pair sham strap hinges, p. c. 10s. per pair	1	6 "
10 in. Iron barrel bolt	1	9 "
24 in. Iron tower bolt	1	6 "
4 in. Dead lock	4	0 "
8 in. Oak bound stock lock	7	0 "
Strong thumb latch	2	0 "
Wrought iron latches, with large drop Gothic ring handle	1	8 "
Brass bow grip handles	7	6 "
Brass cubic bolts and eyes on plates	1	4 "
Iron screws and mortises in fir and York stone	1	0 "

SMITH.

CASE IRON AND FINING.

5 in. Semi circular eavesgutter painted in lead and fixing	0	31 per ft. run
Stopped ends	0	5 each
Onlets and gratings	2	9 "
Moulded eaves, gutter and do.	0	6 per ft. run
Stopped ends	0	6 each
Purpose made angles	7	6 "
8 in. Round rain water pipe, jointed in red lead, and fixing with pipe nails	0	5 per ft. run
Extra to shoes	1	1 each
4 in. x 8 in. Rain water pipe and do.	0	11 per ft. run
Extra to shoes	2	0 each
Handle chains, 50s each p. c. and fixed complete	17	0 "
Full sized patent cast plate with chain and fastening	17	0 "

WROUGHT IRON AND FINING.

In rolled iron joists 9 1/2 in. x 4 1/2 in. cut to lengths	9	0 per cwt.
Straps and bolts with heads, nuts and washers, do.	21	17 1/2 "
1 in. x 1 in. Stanchions to windows	1	3 per ft. run
Ornamental heads to do. with leaves riveted on at sides	7	6 "
1 in. x 1 in. Rivet bars	1	0 each
Forged eyes in do. for 1 in. square stanchion	1	0 each

PLASTERER.

Rendering soffits of fire-proof floor, and twice whiten	0	7 per yd. sup.
Render, float, and set walls, finished, run, & sisco	1	0 "
1 1/2 in. reveals	0	1 1/2 per ft. sup.
Do. in splayed do. and sills	0	2 "
Do. circular to soffits of arches	0	2 1/2 "
Lath and half plaster, float, and set and twice whiten ceilings	1	8 per yd. sup.
Angle and arrie	0	28 per ft. run
Do. circular to arches	0	2 1/2 "
Chamfer, 3 in. wide (curved)	1	1/4 or 0 1/2 each
Stops, plain	0	25 each
Do. moulded	0	0 "
Chamfer 4 in. wide	1	1/4 or 0 5 per ft. run
Stops on splay	3	0 or 8 each
Apex mitres	0	8 "
Chamfer, 5 in. wide	2	0 or 0 10 per ft. run
Stops against splayed reveals	3	0 or 0 10 each

PLUMBER.

(Lead covered at 1s. 6d.)

Milled lead and labour in flashings, do.	22	0 per cwt.
Do. in sealings cut to sizes	18	0 "
3 in. lead pipe, including joints, wash coats, and B's g.	0	5 per ft. run

Sec. III.—Crunch.

PRICE BOOK.

Plumber (continued)—		s.	d.
2 in. lead service pipe and do.	.. ..	0	7 1/2 per ft. run.
1 in. lead warming pipe and do.	.. ..	0	7 " "
1 1/2 in. lead service do.	.. ..	1	0 " "
2 in. lead service and do, and opening and making good ground	.. ..	1	6 " "
Cummet joint, 1 1/2 in. do.	.. ..	1	0 arch
1 in. soldered joint	.. ..	1	0 " "
1 1/2 in. do.	.. ..	1	0 " "
1 in. Brass screw down cock and joint, and fixing	.. ..	4	0 " "
2 in. Brass ball valve with copper ball and joint, and fixing (Stalder's by trade)	.. ..	7	6 " "
Galvanized iron system to contain 250 gallons, and fixing to proper beaver	.. ..	0	0 " "
W.C. apparatus, 60s. p.c., including water waste preventers	.. ..	75	0 " "
Sink frame, in floor about 6 in. x 4 in. with lead dressed, and 1 1/2 in. lead waste pipe 8 feet long soldered to same	.. ..	5	0 " "

GLAZIER.

33 oz. Sheet glass, and glazing under 5 feet sup. in a square	.. ..	0	6 per ft. sup.
Circular cutting and risk on do.	.. ..	0	1 per ft. run.
1/2 in. Rolled plate glass and glazing under 4 feet sup. in a square	.. ..	0	6 1/2 per ft. sup.

Glazier (continued)—		s.	d.
1/2 in. Rolled plate glass and glazing under 7 ft. super in a square	.. ..	0	5 per ft. sup.
Lead quarry glazing, p.c. 2s. per foot sup., and fixing, including copper wire, &c.	.. ..	2	6 " "
Do. in Gothic heads measured square	.. ..	2	6 " "
Lead glazing as before 5s. per foot, and fixing to stone	.. ..	2	6 " "
Circular cuttings and risk on do.	.. ..	0	3 " "
Lead glazing 3s. per foot, and fixing to stone	.. ..	3	6 " "
Pieces lead glazing, spandril shape 5 in. x 16 in. extreme	.. ..	4	0 each
Do. 8 in. x 17 in. extreme	.. ..	4	0 " "
Do. 9 in. x 16 in. do.	.. ..	4	0 " "

PAINTER.

Painting four coats on brickwork	.. ..	0	9 per yd. sup.
Do. on bar.	.. ..	0	02 per ft. run.
Do. rain water pipe	.. ..	0	14 " "
Do. eaves gutter (in and out)	.. ..	0	3 " "
Do. shoes to rain pipe	.. ..	0	4 each
Do. hoppers	.. ..	0	8 " "
Size, stain, and two coats varnish with best copal on woodwork	.. ..	1	0 per ft. sup.
Do. frame one side	.. ..	0	1 1/2 per ft. run
Do. skirting	.. ..	0	9 " "

SECTION No. 4.—BUILDERS' MEASURED ACCOUNT PRICED.

Dig and Deposit	.. ..	0	0 Cude
Concrete	.. ..	9	6 " "

DRAINS

4 in. Drain pipe and digging, and filling in	.. ..	0	5 1/2 ft. run
6 in. do. and do 2 ft 6 in. deep and do.	.. ..	0	7 " "
6 in. do. and do 7 ft. do. and do.	.. ..	1	2 " "
Extra to 4 in. bands	.. ..	1	6 each
Do. 8 in.	.. ..	1	9 " "
Do. 4 in. Junctions	.. ..	1	9 " "
Do. 4 in. to 6 in. Junctions	.. ..	2	0 " "
Do. 6 in. to 8 in.	.. ..	2	0 " "
Do. 4 in. to 6 in. Taper pipe	.. ..	3	0 " "
6 in. Syphon and Inlet	.. ..	7	6 " "
6 in. Gallies and setting	.. ..	7	6 " "
Field's trap	.. ..	15	0 " "
Bellman's trap	.. ..	9	6 " "
Ends pipe made good to drain	.. ..	1	0 " "
Do. connected with gully	.. ..	1	0 " "
Connect with Sewer, and pay fees	.. ..	30	9 " "

BRICKLAYER.

Reduced brickwork in mortar	.. ..	11	10 per rod
Do. do. only in cement	.. ..	0	0 per ft. super.
Half-brick wall in cement	.. ..	0	6 " "
Brick nogged partition	.. ..	0	8 9 per yard "
Twice linings	.. ..	0	0 2 " "
Half-brick Trimme in cement and centring	.. ..	6	0 91 per ft. "
Double wide damp course in cement	.. ..	0	0 4 " "
Extra for pointing	.. ..	0	6 0 1 " "
Extra labour only in projecting courses as chimney cap.	.. ..	0	0 6 per ft. run
Do. to brick on edge and double tie crossing in cement as coping	.. ..	0	0 8 " "
6 in. Drain pipes and setting as chimney pots	.. ..	0	2 6 each
2 in. x 3 in. Air bricks and building in	.. ..	0	0 7 " "
Render chimney backs	.. ..	0	0 9 " "
Ends iron bar cut and placed	.. ..	0	0 6 " "

RED BRICKS.

Extra to facing and pointing	.. ..	0	4 per ft. sup.
Labour rate cutting on facing	.. ..	0	2 " "
Extra to axed arch	.. ..	0	9 " "
Do. cut and rubbed arch	.. ..	0	6 " "
Do. do. chloride arch	.. ..	0	8 " "
Out and rubbed ganged apron, 1 1/2 in. proj.	.. ..	0	8 " "
Cut and moulded sinkings in	.. ..	0	6 each
Cut and rubbed planter 8 in. proj.	.. ..	0	3 per ft. sup.
Labour rate cutting on facings	.. ..	0	2 per ft. run
Do. 1 in. or 1 1/2 in. Flaming	.. ..	0	2 " "
Stops	.. ..	0	3 " "
Labour set and rubbed splay, 2 1/2 in. wide	.. ..	0	4 " "
Extra to splayed plinth	.. ..	0	2 " "
Angles to	.. ..	0	3 each
Cut and rubbed moulded course, 3 in. high.	.. ..	0	4 per ft. run
Stops	.. ..	0	4 each
Angles	.. ..	0	2 each
Cut and moulded cornice, &c., 2 1/2 in. h.	.. ..	1	0 per ft. run
Do. on rake	.. ..	1	8 " "
Angles	.. ..	0	9 each
Stops	.. ..	0	4 " "

MOULDED BRICKS

Extra to ornamental bricks	.. ..	3	6 per ft. sup.
Ornamental bricks, 6 in. x 6 in. and bedding	.. ..	1	0 each
Do. do. 9 in. x 9 in.	.. ..	2	0 " "
1 Panel, 2 ft 3 in. x 1 ft 6 in. and bedding	.. ..	7	0 " "
1 Extra to cut, and ganged key brick, 11 in. x 9 in. and 16 in. width and bedding	.. ..	0	6 " "

MASON.

2 in. Rubbed hearth	.. ..	1	0 per ft. sup.
3 in. Cothals	.. ..	1	0 " "
3 in. tooled step	.. ..	1	0 per ft. sup.
Pair ends	.. ..	1	0 " "
6 in. Rubbed step	.. ..	1	0 per ft. sup.
Bounded ends	.. ..	0	3 each
7 in. Rubbed step	.. ..	1	8 per ft. sup.

PRICE BOOK.

[Sec. IV.—MEASURED ACCOUNT.]

MASON (continued).—

	s.	d.
Quadrant corners	2	0 ea l.
Four ends	0	9 "
10 in. x 4 in. Lintel	1	3 per ft. run
10 in. x 4 in. Lintel	1	3 "
16 in. x 8 in.	1	3 "
9 in. x 8 in. Rubbed, weathered, & throated	1	0 "
Four ends	0	6 each
10 in. x 8 in. Sill as before	1	8 per ft. run
Four ends	0	1 each
14 in. x 4 in. Sill as before	3	0 per ft. run
14 in. x 4 in. Rubbed, weathered, moulded, and throated sill	2	6 "
Spigot mitres	1	0 each
Stopped ends	0	6 "
12 in. x 6 in. Rubbed Sill	3	6 per ft. run
16 in. x 8 in. Rubbed, throated, and moulded coping	3	0 "
Spigot mitres	1	3 each
Labour to back joint	0	2 per ft. run
Do. tessel edge 2 in x 3 in	0	1 "
6 in. x 6 in. Carb.	2	3 "
Groove and metal tongue	0	0 "
Kids sills made good to or cut and pinned	0	6 each
Dovels and mortises	0	6 "
Traced templates, 14 in. x 14 in. x 3 in.	1	3 "
Do. 14 in. x 14 in. x 3 in.	1	0 "
15 in. x 9 in. x 8 in. Do. with hole for R. W. pipe	0	2 "
14 in. x 14 in. x 3 in. rubbed, sunk, dished, and rebated stones for iron gratings	2	6 "
Plain chamfered chimney jambs and mantel and fixing	12	0 "
Do. segmental head and fixing	25	0 "
Fixing only machine ships with cramps, &c.	10	0 "
Do. do. fence with dovels, &c.	5	0 "
Laying tile hearths, including concrete & bed	7	6 "

TILER.

	s.	d.
Tiling bedded in lime and hair	2	14 0 per square
Patent hip tiles and fixing	0	1 0 per ft. run
Ornamental ridge tiles, &c.	0	1 0 "
Cuttings at intersection of ridge and hip	0	1 0 "
Cutting to terminals	0	1 0 "
Ornamental terminal, fixing only	0	2 5 "

CARPENTER AND JOINER.

	s.	d.
Centring	0	3 3 per ft. sup.
Turning pieces	0	2 "
Fit in wall plates and battens	0	2 0 "
Do. framed	0	2 8 "
Do. brassummer bolted to	0	2 9 "
2 in. Boarding on roof	0	10 6 per sq. sup.
1 in. battens	0	8 0 "
7 in. deal boarding for lead	1	1 5 "
Do. bottom, &c., for safe	0	6 6 per ft. sup.
Pell on roof	0	12 0 per square
Labour to drip	0	2 2 per ft. run
Do. applied edge on 4 in.	0	0 13 "
25 in. x 2 in. battens	0	0 5 "
Herring bone strutting 9 in. posts	0	0 21 "
Narrow gutter boards and batten	0	0 1 "
Tubing fillet	0	0 1 "
7 in. x 1 1/2 in. Spigoting pieces	0	0 2 "
4 1/2 in. x 8 in. Turning	0	0 2 "
3 in. x 1 in. Wrought nails	0	4 "
7 in. x 1 in.	0	4 "
Extra to deal dovetailed cesspool	0	2 0 "
Do. cesspool for bath fitting	0	0 4 "
Demon flange pipe	0	0 8 "

FLOORS AND SKIRTINGS.

	s.	d.
1 in. Flooring, per square	14	8
Mixed boarder	2	6
Extra to forming mat pit, 3 ft. x 2 ft.	0	0

FLOORS AND SKIRTINGS (continued).—

	s.	d.
7 in. x 1 in. square skirting and grounds and beekings, including housings	0	3
7 in. x 1 in. Moulded	0	9
9 in. x 1 in. Do.	0	4
10 in. Double faced	0	1
4 in. Moulded chair rail and mitres, notchings, &c.	0	4
Spigot returns	0	6

SASHES, Etc.

	s.	d.
15 in. Moulded fixed sash	0	4 per ft. sup.
15 in. Do. sash hung outside	0	9 "
2 in. Do. fixed sash	0	9 "
2 in. Do. sash hung as before	0	10 "
2 in. Do. fixed do. prepared for lead	0	10 "
2 in. Do. fixed sash light	0	0 "
2 in. Do. sash hung as before	1	0 "
Deal cassid frames, oak weathered sills, and 2 in. lead moulded sashes, double hung with brass axle pulleys, patent lase, and iron weights	1	44 "
Do. the upper part prepared to design	1	5 "
Do. all as first, but Venetian	1	5 "
Do. with moulded fixings to lay windows &c.	1	3 "
44 in. Moulded casement frame in three openings, and 2 in. moulded casements	1	6 "
44 in. x 8 in. Do. and mullion	1	6 "
Moulded burra to sashes	2	each.
Fixing frames and painting	2	6 "
Door frames	2	0 "

DOORS.

	s.	d.
5 in. Lugged	0	6 per ft. sup.
14 in. Do. and beaded	0	9 "
15 in. Two panel square	0	1 "
15 in. Four	0	9 "
2 in. Do. bead, butt, and square	0	11 "
9 in. Read, butt, and moulded, upper part for glass	1	4 "
2 in. Four panel, moulded both sides	1	1 "
2 in. Five panel	1	2 "
2 in. Moulded both sides, upper part in nine squares, moulded, and beaded, and prepared for lead lights	3	0 "
2 in. Moulded, and beaded, moulded with raised panel, upper part glass	1	3 "
9 in. Six panel, moulded both sides	2	0 "

FRAMINGS.

	s.	d.
14 in. Moulded both sides, three panels high	1	2
Extra for doors prepared for glass	3	6 each
2 in. Square, framed both sides	1	per ft. sup
Extra for doors in	3	0 each
Do. fixing to cross framing	2	0 "
2 in. Square, framed sash partition, 3 panels high	1	4 per ft. sup.
Extra for door in	3	0 "
Do. beads around panels	0	10 "
2 in. Moulded, and square spandril framing	1	4 "

LININGS, ETC.

	s.	d.
1 in. Double beaded	0	4 per ft. super.
2 in. Beaded	0	4 "
2 in. Matched and beaded	0	4 "
3 in. Double beaded	0	5 "
1 in. Wrought both sides	0	5 "
1 in. Double beaded	0	9 "
1 in. Wrought both sides, matched, and beaded	0	7 "
1 in. Canvas, &c.	0	6 "
14 in. Wrought, one side lining	0	7 "
14 in. Wrought double, rebated, and beaded lining	0	15 "
14 in. Wrought and beaded casing	0	1 "

[Sec. IV.—MEASURED ACCOUNT.

STAINS IN DEAL (continued)—

		a. d.
Extra to ramp	1.0	per ft. run
11 in. x 14 in. Moulded closing string ..	2.10	"
Extra to ramp	0.30	"
Returned material	0.03	"
Splayed ends	0.05	"
Splayed closed ends and boardings	0.05	"
4 in. x 2 in. moulded and rebated capping	0.02	"
Splayed knees	0.42	each
Ordinary runners	0.45	"
2 in. x 2 in. Daid rounded handrail	0.75	per ft run
2 1/2 in. x 3 in. Slip chamfered newel	1.00	"
Circular and	1.00	"
2 1/2 in. x 3 in. Moulded and grooved coping ..	0.02	"
Splayed cappings	0.02	"
4 in. x 4 in. Octagonal newel	1.40	"
Turnings	1.40	"
Turned pedestal	0.02	"
House top on joints	0.04	"
5 in. x 6 in. framed and moulded newel ..	1.10	"
Turnings	2.00	each
Turned pedestal	1.10	"
4 in. x 3 in. Walnut moulded and framed polished handrail	5.00	per ft. run
House top on fittings	0.02	"
Ends cut and painted	0.02	"
Mousing turn and raise to ceiling	0.05	"
Do wicker do	0.01	"
Extra to ball nosed step, returned ends ..	4.00	"
12 Turnings and capped walnut terminal, and fitting with hard pine and French polishing	7.00	"
4 in. x 4 in. Do, do, and do, do	5.00	"
Extra labor and materials in cutting away joints on splay and trimming for handway	2.00	"

Male 2 in. Iron 1/2 lbs	..	..	..	6	10
Do 2 1/2 in. do	..	..	..	1	9
Do 3 in. do	..	..	..	1	3
Do 4 in. do	..	..	..	1	4
Do 4 1/2 in. do	..	..	..	1	10
Do 5 in. do	..	..	..	1	4
Do 9 in. Brass butte	..	..	..	1	3
Do 18 in. Cross gasette	..	..	..	1	3
Do 20 in. Water joint do	..	..	..	1	9
Do Bush castings	..	..	..	1	0
4 in. 6. locks and 1/2 galleys	..	..	..	1	0
4 in. Neck bolt	..	..	..	1	0
8 in. Barrel do	..	..	..	1	0
8 in. Brass do	..	..	..	2	6
9 in. do	..	..	..	1	3
Norfolk latches	..	..	..	1	4
Night latch reverse, bolt, and two keys	..	..	..	17	0
Brass W. C. latch and flush bolt, brass form, etc	..	..	..	1	9
Cupboard lock	..	..	..	1	9
Rim do	..	..	..	1	9
9 in. Drawers, 4 do	..	..	..	6	6
10 in. do	..	..	..	7	8
Dress Chains	..	..	..	1	8
Brass crapped screws	..	..	..	0	2
Do. knobs	..	..	..	0	4
Do. cockspur fastenings	..	..	..	1	8
Do. thumb on plates	..	..	..	0	6
Do. drop hinged sub. lites	..	..	..	0	1
4 in. Brass thumb screw	..	..	..	1	5
Brass fastenings	..	..	..	1	6
14 in. Dresser hooks	..	..	..	2	0 per doz
Japanned hat and coat hooks	..	..	..	8	8 each
Brass do	..	..	..	1	6
Japanned cement stay	..	..	..	1	6
Brass pull down	..	..	..	1	3
Do. flush lites	..	..	..	1	3
Performance	..	..	..	1	0 per ft size
Iron bowls and mortises in stone and fir	..	..	..	0	6 each
Do. 12 in. x 1 in. and do.	..	..	..	1	0

LATHING REQUIRED.		PLASTER REQUIRED.	
13 in. Wrought-iron top, &c.		2	4 per ft. super.
Labour rounded edge, part circular		0	2 per ft. run
Quadrant corners		0	3
Circular end		0	0
44 in. x 1 in. Skirting		0	0
Quadrant corners to do.		0	0 each "
Moulds and housings.		0	0
How for loss in 14 in.		1	2 each
Set W. for 2 strings complete		53	6 per set
Extra for 2, to remove easily		2	6

Attend to Bath..	2.5	2.5	2.5	2.5	2.5	2.5	8	0
Lavatory	2.5	2.5	2.5	2.5	2.5	2.5	9	0
Sink ..	2.5	2.5	2.5	2.5	2.5	2.5	9	0
W.C. .	-	-	-	7.5	2.5	2.5	3	0

12	5 in. Moulded trade and 1 in. rims glass, blocked, and bracketted, and strong carriage to close string	..	0	04	per ft. runner.
	Do. in winder	..	0	10	"
1	1 in. Moulded fascia	..	0	8	"
2	Boards to grove	..	0	04	per ft. run
20	1/4 in. x 1 in. Moulded two edges and planted on	..	0	4	"
5	Played cutting to do.	..	0	3	"
12	1/4 in. x 1 in. Moulded nosing	..	0	3	"
4	1/4 in. x 1 in. Do.	..	0	4	"
4	1/4 in. x 1 in. Do.	..	0	5	"
2 1/2	Doal balusters, framed one end to wains and one to deal	..	0	2	"
	Turnings	..	0	4	"
	9 in. x 1 1/2 in. Siding	..	0	7	"
	Extra to close	..	1	0	"
5	Play cuttings and boccings	..	0	8	each
16	1/4 in. x 1 1/2 in. Moulded wall string	..	0	10	per ft. run

FIXING ONLY.

	s	d.
Nails	0	2 each
W.C. lathe	1	0
Night latch	1	6
Cupboard locks	1	0
Four do.	1	0
Do. dead do.	1	0
Mortice locks and furniture ..	2	0
Four finger plates	1	0
Night chain	0	6
Door panel, and handle, and cutting away	2	6
Knocker, do.	1	0
Stall fastener, do.	0	6
Casement do.	0	6
Turnbuckles	0	4 each
Break locks	1	0
Shutter do.	0	4
Hat and coat hooks	0	4
Door stops	0	3
Trunk hardware	0	6

FOUNDER AND SMITH.

CAST IRON AND IRON.

5 in. Open gutter	0	6 per ft. run
Outlet	0	2 each
Angles	1	0
Stopped ends	0	6
Nipples	0	0
3 in. Rainwater pipe	0	6 per ft. run
Swan-neck to do.	1	0 each
Elbow	3	6
Elbow	9	0
Shoe	1	0
Boots made good to drain	0	4

WOODEN LAG AND FIXING.

In bearing bars	0	18 6 per cwt.
In guard do.	1	0
Spear heads to do.	0	1 each
Forged ends and screws	0	0
Riveted ends	0	1 0
Boring deal and fitting	0	0 4
3 in. Bolts, 14 in. long, and fixing ..	0	0 2 per lb.
13 in. x 4 in. x 3 in. Corbels, and do. ..	0	3 each
24 in. x 8 in. x 2 in. do.	0	2
Area grating 8 ft. 6 in. x 1 ft. 9 in. ..	1	10 0
Letting ends in stone, and running with sulphur	0	6 5
Hinged door and frame 18 in. x 16 in. ..	0	15 0
Strong chain hook and staple, and building in and making good ..	0	7 6

PLASTERER.

Render, float, and set walls	0	0 11 per ft. super.
Render and float cement floor	0	1 6
Lath, plaster, float, and set	1	4
Plaster moulded cornice	0	1 3
Mitre to do, 21 in. girth (averaged) ..	0	1 2 each
Stops to do, 17 in. do.	0	0 2
Labour to quirk in plaster	0	0 1 per ft. run

BRICKS' CHARGE.

Lath, plaster, float, and set, and finish ..	0	3 6 per ft. super.
Kenn's Cement	0	1 6
Corse to do.	0	1 6
Mitre to do, 15 in. girth	0	1 8 each
Plum line 4 in. wide	0	0 2 per ft. run
Do. circular	0	0 2
Mitre	0	0 2
Stopped ends	0	0 1
Plum moulded skirting, 12 in. high ..	0	1 0
Mitre	0	0 4
Stop	0	0 1

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PLASTERER (continued).—

	s	d.
Rounded angle	0	0 4 per ft. run
Eloped do.	3	0 8
Slopes	1	0 each
Moulded angle	0	0 5 per ft. run
Do. circular	0	0 7
Stops	0	0 2
Mitre	0	0 2
Centre flowers 2 ft. 6 in. diameter ..	1	1 0 each
Portland cement rendering	0	1 0 per ft. super.

PLUMBER.

Zinc in safe	0	0 7
Mixed lead and labour	1	0 per cwt.
Soldered seam	0	0 6 per ft. run
Do. angle	0	0 8
3 in. Lead service pipe, joints, do., and fixing	0	0 10
14 in. do.	0	0 1 4
3 in. Lead waste or overflow do., and do. ..	0	0 9
14 in. do.	0	0 1 4
3 in. do.	0	0 3
4 in. Lead soil pipe, and do.	0	0 3 8
Extra to Cesspool	0	0 2 6
Soldered angle to safe	0	0 3
Do. joints to 3 in. pipe (extra)	0	0 10
Do. do, 1 1/2 in. do.	0	0 1 3
Do. do, 1 1/2 in. do.	0	0 1 3
Do. do, 3 in. do.	0	0 1 3
Do. do, 4 in. do.	0	0 5 8

Soldered tinned joint to 3 in. pipe ..	0	0 3 8
Do. ends of 1 in. do.	0	0 3 6
Joints of 1 in. pipe to W.C.	0	0 3 0
13 in. Fully joint	0	0 1 0
Raduated ends to 4 in. pipe	0	0 2 0
8 in. Lead Swan-neck, 30 in. girth ..	0	0 9 0
Ornamental rose ventilating cap	0	0 5 0
Fixing W.C.	0	0 10 0

Do. Servants' do. on brickwork	0	0 7 0
Do. Lavatory basin	0	0 5 0
Do. Sinks	0	0 3 0
Do. Bath	1	0 0
Do. W. W. Preventer	0	0 6 0
Furnish, and joint, and fix	0	2 6 0
Do. Bolts, screws, and fixing	0	0 2 0
14 in. do.	0	0 3 6

3 in. Screw down bib-cocks, and joints, and fixing	0	0 5 2
3 in. Ball valve, and do., do.	0	0 7 6
3 in. Stop-cocks, and fixing, and joints 0 4 8 each	0	4 8 each
3 in. Screw down do. and do.	0	0 10 0
Urn cocks do. and do.	0	0 1 0
62 Gallon iron cistern and do.	1	10 0
80 Do. do. and do.	1	18 0
Iron cistern, 8 ft. 6 in. x 2 ft. 2 in. x 2 ft., and covers	2	15 0

GLAZIER.

31 oz. Sheet glass	0	0 6 per ft. super.
32 oz. Do.	0	0 7
Do. Ground one side	0	0 7
Plated sheet	0	0 9
3 in. Rolled plate	0	0 9
Polished plate	0	2 3

PAINTER.

Three Oils on iron bar	0	1 per ft. run
Do. black	0	1
Ventilators, four oils	0	1 0 each
Art brushes, four oils	0	0 4
Stoves blacked	0	0 6
Hearth blacked	0	0 6
Ranges blacked	0	1 1
Four oils (for wood)	0	1 0 per yd. super.
Shell edge	0	1 per ft. run
Skirting and string	0	0 2
Frames	0	0 2
Large do.	2	4

PRICE BOOK.

[Sec. IV. - MEASURED ACCOUNT.]

PAINTER (continued)—				PAINTER (continued)—			
		s	d.			s	d.
Dosen sash squares	2	6	per dozen	Bar	0	1 1/4	per ft. run
Dosen large squares	3	6	"	Frames	2	8	each
Chimneys	1	6	each	Large do.	3	4	"
Fanlights	0	0	"	Sash squares	3	4	per dozen
Large sky-light	10	0	"	Large do.	4	0	"
Dresser	7	6	"	Fanlights	1	0	each
Brackets	3	0	"	Four and stippled varnish on reveal ..	1	3	per ft. run
Chimney piece	5	6	"	Four parti-colours and varnish ..	1	0	per ft. super.
" special design	4	0	"	Shelf edge	0	1 1/4	per ft. run
Four oils, parti-colours	1	2	per yd. super.	Skirting	0	8	"
Frames	2	4	each	Fanlight	1	1	each
Benches	2	11	per dozen	Chimney piece and over mantel, special design ..	7	6	"
Large do.	3	6	"	Clearsole and white ceilings	6	2	per yd. super.
Chimney piece, special design	5	0	each	Do. to cornice	0	6 1/2	per ft. run
Four oils and varnish	1	4	per yd. super.	Do. to centre flowers	1	0	each
Skirting and string	0	2 1/2	per ft. run	Distemporing	0	2	per yd. super.
Shelf edge	0	1 1/4	"				

NOTES, ADDITIONAL PRICES, AND QUOTATIONS.

(Continued from page 431.)

PRICE BOOK.

NOTES, ADDITIONAL PRICES, AND QUOTATIONS (*Continued*).

ASTD

THE ADVERTISING STATIONS (RATING) ACT, 1969
(53 & 58 Vic. Ch. 27).

1. FLUCTUATING INTERPRETATION

For Cotton and Landley, L.J.J.:—Sensible: If in an action for obstruction of light, it appears on the plaintiff's evidence that there has been some interruption, which in its nature is permanent, the onus is on the plaintiff of proving that such interruption did not in fact continue with its acquiescence for a year; but if the interruption is in its nature fluctuating and temporary, the onus of proving that it, in fact, continued and was acquiesced in by the plaintiff for a year, lies on the defendant (*Presland v. Bagshaw*, 41 Ch. D. 268; *W. R.* [1890] 52.)

2. LIGHT FOR SPECIAL PURPOSES -- UNCONSECRATED CHAPEL --
MEMORIAL WINDOWS -- MURAL DECORATIONS -- MOSAICS --
CARTOONS -- STAINED GLASS

There is, however, no rule that each special amount of light must have been used for the ordinary prescriptive length of time.

be a "building" within sec. 8 of the Prescription Act, entitled to protection with regard to the light necessary, not only for conducting the services and classes, but also for the designed illumination of the works of art. (*Athlone-General v. Queen Anne Garden and Mansions Company*, 60 L. T. 793.)

The right to access of lights, signals and markers of the Prescription Act has been opened up in such a manner as to let the owner of a vessel claim compensation for the passage of a light or signal in the case of a vessel with no navigational aids and no navigational aids or aids which are not visible at night or in fog, and there is no need to interrupt the use of a light or signal, provided the vessel is not in the area of the light or signal at the time of the passage of the light or signal. (R. G. D. 1, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576

Notes.

[A] Although a general agreement to refer all disputes which may arise between the parties could not be revoked, a submission to a particular arbitrator was revocable at any time (*Devick v. Jennings*, 100 W. R. 103, 107, D.).¹ The arbitrator's jurisdiction is not lost by a submission to him, and a submission is not irrevocable, although it may be made on a condition that the arbitrator's award shall be final and conclusive, and that the parties shall not be allowed to dispute the award, or to apply to the court for a review of it (*W. & A. v. W. & A.*, 10 W. R. 47, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845

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Power to Stay Proceedings where there is a Submission

6. If any party to a submission, or any person claiming through or under him, commences any legal proceedings in any Court against any other party to the submission, or any person claiming through or under him, in respect of any matter agreed to be referred, any party to such legal proceedings may at any time after appearance, and before delivering any pleadings, or taking any other steps in the proceedings, apply to that Court to stay the proceedings, and that Court or a judge thereof if satisfied that there is no sufficient reason why the matter should not be referred in accordance with the submission, and that the applicant was, at the time when the proceedings were commenced, and still remains, ready and willing to do all things necessary to the proper conduct of the arbitration, may make an order staying the proceedings.

Power for the Court to certain Cases to appoint an Arbitrator, Umpire, or Third Arbitrator

8. In any of the following cases—

- (a) Where a submission provides that the reference shall be to a single arbitrator, and all the parties do not after differences have arisen concur in the appointment of an arbitrator;
- (b) If an appointed arbitrator refuses to act, or is incapable of acting, or dies, and the submission does not show that it was intended that the vacancy should not be supplied, and the parties do not supply the vacancy;
- (c) Where the parties or two arbitrators are at liberty to appoint an umpire or third arbitrator, and do not appoint him;
- (d) Where an appointed umpire or third arbitrator refuses to act, or is incapable of acting, or dies, and the submission does not show that it was intended that the vacancy should not be supplied, and the parties or arbitrators do not supply the vacancy.

any party may serve the other parties or the arbitrators, as the case may be, with a written notice to appoint an arbitrator, umpire, or third arbitrator.

If the appointment is not made within seven clear days after the service of the notice, the Court or a judge may, on application by the party who gave the notice, appoint an arbitrator, umpire, or third arbitrator, who shall have the like powers to act in the reference and make an award as if he had been appointed by consent of all parties.

Power for Parties in certain Cases to supply Vacancy

6. Where a submission provides that the reference shall be to two arbitrators, one to be appointed by each party, then, unless the submission expresses a contrary intention—

- (a) If either of the appointed arbitrators refuses to act, or is incapable of acting, or dies, the party who appointed him may appoint a new arbitrator in his place;
- (b) If, on such a reference, one party fails to appoint an arbitrator, either originally or by way of substitution as aforesaid, for seven clear days after the other party, having appointed his arbitrator, has served the party making default with notice to make the appointment, the party who has appointed an arbitrator may appoint that arbitrator to act as sole arbitrator in the reference, and his award shall be binding on both parties as if he had been appointed by consent.

Provided that the Court or a judge may set aside any appointment made in pursuance of this section.

Power of Arbitrator

7. The arbitrators or umpire acting under a submission shall, unless the submission expresses a contrary intention, have power—

- (a) to administer oaths to or take the affirmations of the parties and witnesses appearing; and
- (b) to make an award as to the whole or part thereof of the

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form of a special case for the opinion of the Court; and

- (c) to correct in an award any clerical mistake or error arising from any accidental slip or omission.

Witnesses may be Summoned by Subpoena

8. Any party to a submission may sue out a writ of subpoena ad testificandum, or a writ of subpoena duces tecum, but no person shall be compelled under any such writ to produce any document which he could not be compelled to produce on the trial of an action.

Power to Enlarge Time for making Award

9. The time for making an award may from time to time be enlarged by order of the Court or a judge, whether the time for making the award has expired or not.

Power to Remit Award

10. (1) In all cases of reference to arbitration the Court or a judge may from time to time remit the matters referred, or any of them, to the reconsideration of the arbitrators or umpire.

(2) Where an award is remitted, the arbitrators or umpire shall, unless the order otherwise directs, make their award within three months after the date of the order.

Power to set aside Award

11. (1) Where an arbitrator or umpire has misconducted himself, the Court may set aside the award.

(2) Where an arbitrator or umpire has misconducted himself, or an arbitration or award has been improperly procured, the Court may set the award aside.

Enforcing Award

12. An award on a submission may, by leave of the Court or a judge, be enforced in the same manner as a judgment or order to the same effect.

REFERENCE UNDER ORDER OF COURT.

Reference by Report.

13. (1) Subject to rules of Court and to any right to have particular cases tried by a jury, the Court or a judge may refer any question arising in any cause or matter (other than a criminal proceeding by the Crown) for inquiry or report to any official or special referee.

(2) The report of an official or special referee may be adopted wholly or partially by the Court or a judge, and if so adopted may be enforced as a judgment or order to the same effect.

Power to Refer in certain Cases

14. In any cause or matter (other than a criminal proceeding by the Crown)—

- (a) If all the parties interested who are not under disability consent; or,
- (b) If the cause or matter requires any prolonged examination of documents or any scientific or local investigation which cannot in the opinion of the Court or a judge conveniently be made before a jury or conducted by the Court through its other ordinary officers; or,
- (c) If the question in dispute consists wholly or in part of matters of account.

the Court or a judge may at any time order the whole cause or matter, or any question or issue of fact arising therein, to be tried before a special referee or arbitrator respectively agreed on by the parties, or before an official referee or officer of the Court.

Power and Remuneration of Referees and Arbitrators.

15. (1) In all cases of reference to an official special referee or arbitrator under an order of the Court or a judge in any cause or matter, the official or special referee or arbitrator shall be deemed to be an officer of the Court, and shall have such authority, and shall conduct the reference in such manner, as may be prescribed by Rules of Court, and subject thereto as the Court or a judge may direct.

(2) The report or award of any official or special referee or arbitrator on any such reference shall, unless set aside by the Court or a judge, be equivalent to the verdict of a jury.

AND LEGAL DECISIONS OF THE YEAR.

(5) The remuneration to be paid to any special referee or arbitrator to whom any matter is referred under order of the Court or a judge shall be determined by the Court or a judge.

Court to have Powers as in References by consent.

48. The Court or a judge shall, as to references under order of the Court or a judge, have all the powers which are by this Act conferred on the Court or a judge as to references by consent out of Court.

Court of Appeal to have Powers of Court

47. Her Majesty's Court of Appeal shall have all the powers conferred by this Act on the Court or a judge thereof under the provisions relating to references under order of the Court.

General.

Power to Compel Attendance of Witnesses in any part of the United Kingdom, and to order Habeas Corpus to issue.

49. (1) The Court or a judge may order that a writ of subpoena ad testificandum or of subpoena duces tecum shall issue to compel the attendance before an official or special referee, or before any arbitrator or umpire, of a witness wherever he may be within the United Kingdom.

(2) The Court or a judge may also order that a writ of habeas corpus ad testificandum shall issue to bring up a prisoner for examination before an official or special referee, or before any arbitrator or umpire.

Statement of Case pending Arbitration

43. Any reference, arbitrator, or umpire may at any stage of the proceedings under a reference, and shall, if so directed by the Court or a judge, state in the form of a special case for the opinion of the Court any question of law arising in the course of the reference.

Costs.

20. Any order made under this Act may be made on such terms as to costs, or otherwise, as the authority making the order thinks just.

Exercise of Powers by Masters and other Officers.

24. Provision may from time to time be made by Rules of Court for conferring on any Master, or other officer of the Supreme Court, all or any of the jurisdiction conferred by this Act on the Court or a judge.

Penalty for Perjury.

23. Any person who wilfully and corruptly gives false evidence before any referee, arbitrator, or umpire shall be guilty of perjury, as if the evidence had been given in open Court, and may be dealt with, prosecuted, and punished accordingly.

Order to be Bound.

23. This Act shall, except as in this Act expressly mentioned apply to any arbitration to which Her Majesty the Queen either in right of the Crown, or of the Duke of Lancaster or otherwise, or the Duke of Cornwall, is a party, but nothing in this Act shall empower the Court or a judge to order any proceedings to which Her Majesty or the Duke of Cornwall is a party, or any question or issue in any such proceedings, to be tried before any referee, arbitrator, or umpire without the consent of Her Majesty or the Duke of Cornwall, as the case may be, or shall affect the law as to costs payable by the Crown.

Application of Act to References under Statutory Powers. (B)

25. This Act shall apply to every arbitration under any Act passed before or after the commencement of this Act as if the arbitration were pursuant to a submission, except in so far as this Act is inconsistent with the Act regulating the arbitration, or with any rules or procedure authorised or recognised by that Act.

Notes.

(B) There are five kinds of references possible in the case of a party well in the metropolitan, viz. 1. To one survivor by the concurrence of both parties under sub section 7 of Sec. 13 of the Metropolitan Building Act. 2. To three survivors under that sub section, which is the usual case. 3. To a sole referee outside the Building Act. 4. To two arbitrators and an umpire outside the Building Act. 5. To three arbitrators outside.

Saving for pending arbitrations.

25. This Act shall not affect any arbitration pending at the commencement of this Act, but shall apply to any arbitration commenced after the commencement of this Act under any agreement or order made before the commencement of this Act.

Repeal.

26. (1) The enactments described in the Second Schedule to this Act are hereby repealed to the extent therein mentioned but this repeal shall not affect anything done or suffered, or any right acquired or duty imposed or liability incurred, before the commencement of this Act, or the institution or prosecution to the termination of any legal proceeding or other remedy for ascertaining or enforcing any such liability.

(2) Any enactment or instrument referring to any enactment repealed by this Act shall be construed as referring to this Act.

Definitions.

27. In this Act, unless the contrary intention appears,—

"Submission" means a written agreement to submit present or future dispute to arbitration, whether an arbitrator is named therein or not.

"Court" means Her Majesty's High Court of Justice.

"Judge" means a judge of Her Majesty's High Court of Justice.

"Rules of Court" means the Rules of the Supreme Court made by the proper authority under the Judicature Acts.

Extent.

28. This Act shall not extend to Scotland or Ireland.

Commencement.

29. This Act shall commence and come into operation on the first day of January one thousand eight hundred and ninety.

Short Title.

30. This Act may be cited as the Arbitration Act, 1889.

THE FIRST SCHEDULE

Provisions to be implied in Submissions.

a. If no other mode of reference is provided, the reference shall be to a single arbitrator.

b. If the reference is to two arbitrators, the two arbitrators may appoint an umpire at any time within the period during which they have power to make an award.

c. The arbitrators shall make their award in writing within three months after entering on the reference, or after having been called on to act by notice in writing from any party to the submission, or on or before any later day to which the arbitrators by any writing signed by them, may from time to time enlarge the time for making the award.

d. If the arbitrators have allowed their time or extended time to expire without making an award, or have delivered to any party to the submission, or to the umpire a notice in writing, stating that they cannot agree, the umpire may forthwith enter on the reference in lieu of the arbitrators.

e. The umpire shall make his award within one month after the original or extended time appointed for making the award of the arbitrators has expired, or on or before any later day to which the umpire by any writing signed by him may from time to time enlarge the time for making his award.

f. The parties to the reference, and all persons claiming through them respectively, shall, subject to any legal objection, submit to be examined by the arbitrators or umpire, on oath or affirmation, in relation to the matters in dispute, and shall, subject as aforesaid, produce before the arbitrators or umpire, all books, deeds, papers, accounts, writings, and documents within their possession or power respectively which may be required or called for, and do all other things which during the proceedings on the reference the arbitrators or umpire may require.

g. The witnesses on the reference shall, if the arbitrators or umpire think fit, be examined on oath or affirmation.

h. The award, to be made by the arbitrators or umpire shall be final, and binding on the parties and the persons claiming under them respectively.

i. The costs of the reference and award shall be in the

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discretion of the arbitrators or umpire, who may direct to and by whom, and in what manner those costs or any parts thereof shall be paid, and may tax or settle the amount of costs to be so paid or any parts thereof, and may award costs to be paid as between solicitor and client.

ARTIZANS' AND LABOURERS' DWELLINGS.

"OWNER'S" DEEDITION OF A TIME WHEN OFFERED TO BE ACQUITTED.

BY VARIOUS sections of the Artizans' and Labourers' Dwellings Act, 1869, notice of all proceedings, &c., under the Act are directed to be served upon the "owner" of the premises which are being dealt with by the local authority. By sec. 14, "owner" is defined to include "all persons or corporations by any premises required to be dealt with under the Act, except persons holding or entitled to the rents and profits of such premises for a term of years, of which twenty-one years he not remain unexpired." In July, 1890, the tenant of premises was possessed of them as assignee of a lease expiring at Michaelmas, 1890, and was also the assignee of another lease of the same premises for twenty-one years, commencing on the expiration of the first lease. In the same month the Vestry, in the exercise of their powers under the Act, caused copies of the reports of their officers of health and their surveyor, with a notice of the time and place appointed for their consideration, to be served upon the tenant, as being the "owner" under sec. 7 of the Act. In the following October an order was made by the Vestry for the demolition of the premises. The work required was done by the tenant, who, upon its completion, applied to, and obtained from the Vestry, a charging order upon the premises, which, although the interest of the tenant in the new lease was in law only an interest term, he had such an interest in the premises at the time when the proceedings were taken by service of the notice upon him as to make him the "owner" within the meaning of the section, and, that the point of time to be looked at in order to determine the ownership for the purpose of the Act, was the date of the service of the notice, and not of the making of the order for demolition. (*Reg. v. St. Margarets Vestry*, 20 Q. B. 415; 57 L. J. M. G. 9; 48 L. R. 2, 180; 36 W. R. 371; 19 J. F. 534—D.)

BANKRUPTCY.

KEEPING OF BOOKS.

A bankrupt began business as an architect and surveyor in 1851 with about £1,000 invested in mortgages and shares, and he attributed his failure to loss in connection with the purchase of the mortgage of a house at Harrow, which he employed the petitioning creditor to complete; and to other means. The Official Receiver reported in opposition to the application that the bankrupt had been guilty of a statutory offence by omitting to keep such books of account as were usual and proper in his business, and as satisfactorily disclosed his business transactions and financial position within the three years immediately preceding his bankruptcy. He stated that the bankrupt had issued as receipts, and kept such books, which showed the accounts with some of his customers, and also sundry subsidiary books, but he had not kept a proper ledger showing the accounts with his creditors, and any accounts of his trade expenses or drawings for personal expenditure, and he admitted that his books had been falsified. The petitioning creditor opposed on other grounds, which are not material.

Mr. HAZEN, for the bankrupt, submitted two questions—first, whether the profession of an architect and surveyor was a trade or business within the meaning of the section 26 of the Bankruptcy Act; and, secondly, what books were necessary to be kept in it? He cited:—*Ex parte the Board of Trade v. Martin*, (Law Reports 9 Q. B. D. 102; 3 The Times Law Reports, 625), and referred to the bankrupt's evidence, which showed that his books, taken together, constituted a record of the whole of his transactions. Some small debts owing to him were also entered in the ledger. He submitted that it was difficult to say what books an architect ought to keep. Should he be required to keep bought and sold ledgers, day books, and books of that description? And what kind of ledgers could he keep?

Mr. HENDERSON LEACHMAN, in giving judgment, said it was charged against the bankrupt that he had omitted to keep such books of account as were usual and proper in his business of an architect, and a clerk had been employed whether an architect could be said to carry on a business. He did not know how that was; it seemed to be a question of fact, and not of law. He should have thought an architect did carry on a business, but there was no evidence on this subject one way or the other. The Official Receiver, however, clearly reported that the bankrupt had omitted to keep proper books in his business, and this must be taken as prima facie evidence, but he HENDERSON had no judicial knowledge on

the subject. Assuming, however, that the offence was proved, it appeared from the proceedings that the interests of creditors had practically not been affected by the omission, and the discharge would be granted, subject to a nominal suspension of three weeks. (*The Times*, "Times" Report, Nov. 27/91.)

BUILDING AGREEMENT.

1. DEBT IN BUILDING.

When the freeholder's agents desired the builder to stop building till it was seen what became of a railway which it was held that the latter had a right to a reasonable time beyond that provided for in the agreement to complete the building operations which had been so delayed. (*British and French Ry. Co. v. London and North Western Railway Co.* [No. 8], C. A., 40 Ch. D. 293.)

2. RIGHT TO LEASE. POWER OF RE-ENTRY—RENT IN ADEQUATE.

Since the Judicature Act, a tenant holding under an agreement for a lease of which specific performance would be decreed, stands in the same position as if the lease had been granted. (*Wright v. Leesdale*, 32 Ch. D. 9.) By building agreement it was stipulated that as soon as H. should have refound in the houses to be erected by him on certain plots of ground belonging to R. H. would grant, and R. would accept, a separate lease for 99 years, at the rent therein mentioned, of each house, and as soon as, the roof was completed, and the plot of ground on which it stood; the lease to be in the form of a draft annexed to the agreement. There was a proviso that the tenant, in respect of any of the plots not previously demised might re-enter in the event of the rent being in arrears for twenty-one days. The term of the lease contained a covenant to complete the house within a certain period, and a proviso for re-entry on non-payment of rent, or breach of covenant, and a proviso for re-entry was given if the works were not proceeded with for twenty-one days. In June, 1891, R. assigned to L. the benefit of the agreement as to four houses, which, it was held, he had done so. It appeared that the main buildings on the plot were completely roofed in, but a projection of one story in height forming the front part of the shops extending about one-third of the way across the plot, was intended to have a flat zinc roof, was only roofed-in with wood, the zinc not having been put on. R. died in July, 1891, and after his death building operations stopped for more than twenty-one days. In Oct. 1891, L. brought his action to compel H. to grant leases. H., by his defence, denied the right of L. to leases, on the grounds that the works had been stopped for more than twenty-one days and that the rent was in arrears.

Held, That R. had refound in the houses according to the meaning of the agreement, and that as soon as he had refound in a house he was entitled to claim, and bound to accept a lease of it, and that his rights and liabilities were the same as if a lease had been granted, and he no longer held the house on the terms of the building agreement but on the terms of the draft lease, and that the draft contained no power of re-entry on work being discontinued for twenty-one days, thus discontinuing, which did not take place until after the right to a lease had accrued, did not affect the right. (*Leather v. Weaver*, C. A. affirming *Kewell v. J.*, W. R. [1891] 25; W. R. [1890] 10; 41 Ch. D. 294.) (A)

3. ASSIGNMENT OF RIGHT TO LEASE BY DEMANDANT REENT.

Where the plaintiff did not complete the house within the time fixed by the agreement, which provided that no tenancy should be created until the lease was executed, and there was a power to re-enter on breach, notwithstanding any previous waiver, but the defendant demised the rent which was paid and receipt for it given, without prejudice to any remedy or liability in respect of any breach of covenant. It was held that by demanding the rent the defendant recognized the plaintiff's right to lease, and he could not make any conditions to payment made in compliance with such demand, and that relief might be given in respect of the breach of covenant. (*Stray v. Strayer*, W. R. [1892] 125; 41 L. T. Rep. 670.)

BUILDING MATERIAL.

1. CONTRACT IN WRITING.

A contract for the sale of building material to be taken down and removed by the purchaser, is a contract for the sale of an interest in land within sec. 4 of the Statute of Frauds, and must therefore be in writing. (*Leaver v. Parrell*, 40 Ch. D. 205; 47 L. J. Ch., 570; 38 L. T., 848; 33 W. R. 163.)

(A) If it is not desired to give a lease, or refuse any of the rights of a lease, until the buildings are finished the agreement must therefore strictly provide for this.

AND LEGAL DECISIONS OF THE YEAR.

2 BILL OF SALE—BUILDING AGREEMENT—SALE OF MATERIALS.

By a mortgage deed the plaintiff assigned to the defendant certain timber, slates and other building materials which may at any time hereafter be brought by or for the mortgagee into the said premises for completing the said buildings. Plaintiff covenanted that all bricks, timber, &c., which shall be brought upon the premises, &c., shall be considered as immediately attached to, and forming part of, the said premises, and that the said materials shall be deemed to be the property of the mortgagee, and that in case the mortgagee shall not proceed with the completion, &c., of the substructure of the premises, it shall be lawful for the mortgagee to enter upon the premises and to take possession of all bricks, &c., and "other building materials, and to complete the said mortgage." The deed further provided that in case of default by the mortgagee the said further power to sell all or any part of the hereditaments or premises, and all bricks, timber, slates, &c., or materials standing and being thereon, or on any part thereof, either together or in parcels, &c. Held, that inasmuch as it gave a power to sell the building materials which was independent of the power to enter upon and take possession of the premises, and might be exercised without the latter power being exercised, the deed was an assignment of personal chattels, so as to constitute a bill of sale within the meaning of sec. 4 of the Bills of Sale Act, 1878, and therefore was a Bill of Sale, and was void under sec. 3 of the Act of 1882, for want of registration and respect of the personal chattels comprised therein. (*In re Tate, Bankruptcy v. Tate*, 38 Ch. D. 113, distinguished. *Chapman v. Cole & another*, 33 Q. B. D. 438.)

BUILDING RESTRICTIONS.

1. COVENANT TO ERECT HOUSES OF CERTAIN VALUE—BREACH OF COVENANT OF LESS VALUE—PRINCIPLE OF DAMAGES.

A plaintiff bought certain plots on a building estate subject to certain restrictions. The defendant subsequently bought other plots with a restriction not to the value of the plots, but he proposed to build houses of less value. Held, that the plaintiff in such a case is not obliged to prove damage in order to obtain an injunction. (*Chas. v. Duffell*, 38 Ch. D. 243; 37 L. J., Ch. 78; 75 L. T. 754; 36 W. R. 500. *Kakerich v. J.*)

2. MORTGAGEE AND MORTGAGOR.

Where a part of a building estate was sold with restrictive covenants, and afterwards subdivided and mortgaged, North, J., held that the mortgagee and owner of part could not enforce the covenants against the owner of the other part, who was a purchaser from the mortgagee; there being no obligation implied as between mortgagee and mortgagee restricting the use of the land. (*King v. Dickson*, W. R. [1895] 53; 40 Ch. D. 346.)

COMMISSION.

1. CUSTOM.

The plaintiff carried on business in Mark-Less, City, and was employed in April, 1888, to sell a piece of land for building purposes, belonging to the defendant, at Black-station, Enfield. He found a purchaser in a Mr. Wright, who commenced operations, but for some reason or other, never completed the building of the 15 proposed houses. After a correspondence, the defendant paid some £18 in sums of £10 and £8, to the plaintiff in respect of his commission, and this sum was brought in March, 1892, to recover £25, the balance of £700, the value of the commission alleged to have been earned. According to the plaintiff's case this was payable as soon as the agreement was signed by the parties; and the above sum was calculated on the basis of one year's exclusive ground-fee. But the defendant said that no such commission was due until the land had been covered and ground-fee had been created for his benefit. There was a strong corollary of evidence on the point as to which custom prevailed, and several architects, surveyors, and engineers were called on either side in support of their respective contentions. At the conclusion of the evidence, Mr. Justice Pollock said the case depended, wholly, upon what had been established of those attempted to be set up. It must be taken the defendant had made no admissions in the correspondence in taking himself out of the action. He came to his conclusion not without some difficulty; but regard must be had to the general rule that commission was earned when the contract was obtained. This was the general rule in commercial contracts, and without some difficulty, but was quite apart from the evidence of the plaintiff or his power to perform his contract. He thought it did not become due by merely getting a man to sign a paper, but getting the man to do something whereby the land was made ready to be built—that is, building the houses. He said with the full belief that the plaintiff's witnesses had given their evidence honestly. On the whole, therefore, he thought the custom was to pay the commission in these

accounts not when the agreement was signed by the parties, but when leases were granted and ground rent received after the houses were built. In that view, therefore, there would be a verdict and judgment for the defendant, with costs. (*King v. Evans*, 3 Times Report.)

2. WHEN BANKRUPT—INTRODUCTION OF PURCHASER TO BANKRUPT—SUBSEQUENT PURCHASE FROM THE ESTATE.

On January 17, 1887, an estate agent, in whose hands the debtor had placed certain property for sale, introduced to such estate a person with a view to purchase, but no agreement could then be come to as to terms, and the debtor a few days afterwards presented his own petition in bankruptcy. On January 17, 1887, further negotiations took place between the person so introduced and the trustee in the bankruptcy in respect of the property, and on January 24, 1887, the purchase was completed, but a proof subsequently tendered by the estate agent for his commission was rejected by such trustee. Held, that the sale was brought about in consequence of the introduction, and was fraudulent thereon, and that the proof for commission must be allowed. (*Durant, ex parte, Stale*, 18 W. M. R. 57, D.)

FIXTURES.

TRADE MACHINERY—BILLS OF SALE ACT.

The Greenfield Glass Bottle Co., having the right to all the coal and fire-land, erected on the surface of the land, for the purpose of their business, a fixed steam engine with main shafting and gearing; a fixed boiler with mountings; a fixed dynamo engine with fixed pump and well cover; a fixed weighing machine and certain steam piping, and the fittings thereof in the drying shed. These articles were fixed to the surface of the land, but were not to be "personal chattels" for any of the purposes of the Bills of Sale Act, so as to require the registration of a memorandum of deposit of the deeds of the land given to a Bank as security for advances, although such fixtures were comprised in the Bank's security. The effect of sec. 6 of the Bills of Sale Act, 1878, being to prevent the articles, which, by it, are excluded from the definition of "trade machinery," from being "personal chattels" for any of the purposes of the Act. (*Thompson v. Greenfield Glass Bottle Co.*, 37 Ch. D. 193; 57 L. J., Ch. 593; 68 L. T. 274; 36 W. R. 464. North, J.)

THE INTERPRETATION ACT, 1889.

(32 AND 33 VICT. CH. 63).

it acts as follows:

Meaning of "Ordinance Map."

Sec. 25 in this Act in every other Act, whether passed before or after the commencement of this Act, the expression "ordinance map" shall, unless the contrary intention appears, mean a map made under the powers conferred by the Survey (Great Britain) Acts, 1841 to 1870, or by the Survey (Ireland) Acts, 1838 to 1870, and the Acts amending the same respectively.

LANDLORD AND TENANT.

For fixtures not necessary.

No notice to repair is necessary under the provisions of sec. 14 of the Covenants and Law of Property Act, 1881, in the case of an agreement for a lease, where there is no actual lease in existence, and the tenant has neglected to keep the terms of the agreement as to repairs.

(*Wheat v. Auer*, 21 Q. B. D. 282; 37 L. J., Q. B. 38; 75 L. T. 95; C. A. Appeal, 33 Q. B. D. 282; 37 L. J., P. 500—Charles, J.)

LIGHTS.

1. DEROGATION FROM GRANT—INTERFERING WITH PLANT.

The rule of law which was stated in the judgment of Sir George Jessel in *Attlee v. Taylor* (16 Ch. D. 255) as follows: "Where a man grants a house in which there are windows, neither he nor anybody claiming under him can stop up the windows or destroy the light," was held not to apply where the grantee was aware that the adjoining land was to be sold out as a new street, and the interference was caused by laying out the remainder of the street for building houses suitable for the locality. (*Overbury Building Co. v. Attlee*, 38 Ch. D. 325; 57 L. J., Ch. 521; 57 L. T. 604, C. A.)

2. REMUNERATION IN LEASE OF RIGHT TO COVERTURE LIGHTS.

A landowner granted a lease to a plaintiff of a house and land with other appurtenances, except rights, if any, restricting the free use of any adjoining land, or the appropriation at any time thereafter of any such land for building or other purpose, obstructive or otherwise.

ACTS OF PARLIAMENT

More than twenty years after this lease the subsequent lessee of an adjoining piece of land under the same lease overrode commenced to build on it in such a way as to obstruct the plaintiff's light. The plaintiff, having brought an action and moved for an injunction, *held*, that the exception of any right, restricting the free use of the adjoining land did not operate as an agreement or consent on the part of the lessee that the owners of the adjoining land might always have a right to obstruct the access of light to the plaintiff's house, within the exception in the 1st section of the Prescription Act, and, therefore, that the plaintiff had acquired an absolute prescriptive right to the light, and was entitled to an injunction. *Atk. v. W. v. Conry*, 37 Ch. D. 56; 63 L. J. Ch. 12; 63 L. T. 39; 36 W. R. 223, C.A.

METROPOLITAN BUILDING ACTS

1. HEIGHT OF BUILDINGS.

A firm of contractors recently appeared to a summons before Mr. Baron, Q.C., at the Westminster Police Court as the plaintiffs of Mr. Benjamin Zahner, deputy-district surveyor, charging them, under the Building Acts, with erecting buildings at Queen Anne's-gate, Westminster, near to Queen Anne's Mansions, of a greater height than 100 feet without having obtained the special sanction of the London County Council. It was stated that this was the first case which had been presented to a district with regard to the height of buildings in the Metropolis, and it was contended that the 36 and 38 Vol. c. 123, section 12, part 1, of the schedule, and also section 3 of the Metropolitan provisions of that statute showed that the sanction of the Metropolitan Board (whose power had been taken over by the County Council) was required for the building of the external walls of a building of a greater height than 100 ft. On the other hand it was urged that the statute made no such restriction, and as long as they made the walls of the respective thickness the height was immaterial. Mr. Baron said the Act pointed to 100 ft. as being a height not likely to be exceeded, but it was not further than that. Mr. Barton, for the prosecution—If you are against me, sir, and I assume you are, I am sorry. Building can be put up any height the builder likes. I want ask you for a case, for this is a very important public question. Mr. Baron—No doubt, I suppose you agree as to the facts. The building is higher than 100 ft. Mr. Barton, for the defendant—We admit that Mr. Barton—and we admit that so far as concerns the thickness of the walls, the building has been constructed in accordance with the Act. Mr. Baron—In my judgment the builders are not restricted to 100 ft. I hardly see how I can grant a case. Mr. Barton—Let them appeal to the ordinary way. So generally it is known that the Council here not the power they claim, that a Bill was brought into Parliament to regulate the height of buildings. Mr. Baron dismissed the summons, and allowed five guineas costs. (*See "Times" Report, Jan. 7, 1898*.)

2. WALL—IMPERING DRAIN OR MATTER BY WALL—ALLOWED THEREAS—STATUTE OF LIMITATIONS.

The plaintiff and defendant were in possession of adjoining houses, both of which were ancient messuages. The plaintiff's house was considerably higher than the defendant's house, and was built up against the western wall of the defendant's house, to the effect that the wall of the plaintiff's house, which was higher than the defendant's house, an external wall was erected at the time of the building of the plaintiff's house, forming part thereof and supporting the roof thereof. The western wall, on the top of which the external wall had been erected, was asserted by the plaintiff to be the property of the defendant, subject to all rights and easements over the same in favour of the plaintiff's house. The external wall, erected on the top of the defendant's western wall was, the plaintiff alleged, his property. The defendant being desirous of adding to the height of his house, removed some of the stones comprising the external wall, and inserted in the holes thereby made, certain beams, for the purpose of supporting a new roof in his house at a greater height than his old roof. The plaintiff, in consequence of this, claimed that the plaintiff had certain rights in respect of the wall, which he, the defendant, had not in any way interfered with. *Held*, that the plaintiff had been in enjoyment of an easement but not in possession, and that nothing had occurred to deprive the defendant of a right to the wall. *Held*, therefore, that the action failed. (*See "Lancet" Report, Jan. 6, 1898*.)

3. PARTY STRUCTURE—DAMAGE

The plaintiff, an owner in fee simple, of a house in London, brought an action against builders claiming damages on the ground that they, in the course of rebuilding an hotel, had caused

injury to the plaintiff's house by crushing and displacing the wall, and also adding for an injunction. On the motion for injunction an inquiry as to damages was directed to be taken before a special referee, and the referee assessed the structural damage at £40, with a proviso that any judgment for damages should be subject to the order of the special referee.

The defendants in their statement of defence alleged that the works were executed under the provisions of the Metropolitan Building Act, and that the damage (if any) to the plaintiff's house was a necessary consequence of carrying out the said works, and that the plaintiff's remedy (if any) was only against the building owner, and was not against the defendants as builders.

Held: That the Metropolitan Building Act did not exonerate a builder from liability for damage which had arisen from his negligence and want of care in carrying out the works. A superior, "does not absolve the inferior if by his negligence a loss has been sustained. It is, in doing this act, he is guilty of negligence whereby loss and damage are occasioned to another, he is personally liable. (*White v. Feltz*, 88 L. T. 710. Kay, J.)

4. PROJECTIONS.

Held (by Div. Ct. Lord Coleridge, C.J., Jesseling, J., each. 98 of the Metropolitan Building Act, 1866, did not amount to a repeal *pro tanto* of sec. 73 of the Metropolitan Building Act 1859, which gave effect to any authorised projections in a house where but for a statutory prohibition they would be lawful, and did not authorise projections which would interfere with the user by the public of a public highway. (*Veary v. St. Mary, Abington v. Goodman*, 25 Q. B. 124.)

METROPOLIS MANAGEMENT ACTS

1. GENERAL LINE OF BUILDINGS—HOUSE AT CORNER OF TWO STREETS.

The appellant's house was built at the corner of S. Road and C. Road, and the Metropolitan Board of Works gave him a certificate under sec. 73 of the Metropolitan Management Amendment Act, 1866, that the building line in the C. Road was fifty feet from the line of the S. Road. As the date of this certificate all the houses on the west side of the S. Road, including the appellant's house, had a uniform line of frontage to that road only; and there was no house to the appellant's house from any other road.

The appellant's house was within fifty feet of C. Road, and it was found as a fact that the site on which the appellant's house was built was in the C. Road. *Held*: That although the appellant's house faced the S. Road, as it was within the building line of the C. Road it was bound to follow the building line in C. Road, and that the respondent had power to order the removal of the house, or so much of it as projected beyond the building line in the C. Road. (*Gilbert v. Veary*, 2 L. R. 146; *Metropolitan District Board v. Evans*, 60 L. T. 146.)

2. LINE OF FRONTAGE.

A builder was summoned at the Westminster Police Court at the instance of the Fulham Vestry for building beyond the line of frontage in Crown Road and Adams Road. The buildings were next to the Queen Anne Tavern, and it was stated that a letter was sent to two defendants cautioning him not to proceed with them until the matter had been approved. Mr. Veary, for the defendant, said the defendant was willing to do everything that was required about of pulling down the houses. A proposal was made, but the respondent to accept it. Mr. Veary, for the defendant, stated that Crown Road was not straight, and it was customary for a general line of buildings to follow the curb. Mr. Veary referred to the plan of the proposed building, which he defined the line of frontage, and said the straight line would extend to the middle of Crown Road. The buildings were considerably behind that line. Mr. Veary, for the defendant, said that Adams Road was not straight, and that the line of frontage in Adams Road was not straight. The defendant, who said that the adjoining owners did not complain. The vestry was asked to order the defendant to pull down the buildings up to the first floor. He did not know that he was doing anything contrary to the law. He did not remember receiving a letter cautioning him not to proceed with the buildings until the matter had been approved. He had been a builder in Kensington and Fulham for twenty years. If a line were drawn and everybody treated alike he should not be in a position to complain. The vestry, on the other hand, submitted that the line must follow the curb of the street. Mr. Veary held that the houses in Crown Road had been built beyond the line of frontage, and therefore he made an order for their demolition to the extent necessary. With regard to

AND LEGAL DECISIONS OF THE YEAR.

the sewer house be should not make any order, as he was guided by the decision in the case of *Farlow* against the *Home* agents. *Verity*, so it was partly in two streets. With regard to the house which was wholly in Adley Street he made an order for its destruction to the extent necessary. Mr. White asked the magistrate to determine at what street the sewer house was. Mr. Flouren said it was in both streets, and therefore he could not interfere. He did not order any order. (*See "Times" report.*)

5. "SEWER" OR "DRAIN"—"VENTING OF SEWERS IN DISTRICT BOARD.—CONSTRUCTION OF DRAIN ILLEGALLY MADE WITHOUT KNOWLEDGE OF BOARD.—LIABILITY OF BOARD.

The duty imposed by sec. 79 of the Metropolitan Local Management Act, 1853, on a District Board, to keep the sewers which are by the Act vented in them so as not to be a nuisance, is not an absolute duty, but only a duty to use all reasonable care and diligence to keep the sewers in a proper condition. If, therefore, a drain which was originally a private drain, has, by reason of a sewer drain being connected with it, become a "sewer," and therefore by the Act vented on the District Board, the Board will not be liable for a nuisance caused by the drain, if it is shown that the connection was made illegally without the knowledge of the Board, and that before action brought, they did not know, and could not have known by the exercise of reasonable care have discovered, that the drain was a "sewer." (*Harwood v. St. Pancras, 2 L. R. C. P. 518, followed.*) (*Stewart v. Poplar Board of Works, 10 Q. B. 77, 11 Q. B. 272, 67 L. J. Ch. 579; 33 L. T. 720; 33 W. R. 521. North, J.*)

NEGLECT

VALUER—MORTGAGEE—ACTION BY MORTGAGEE AGAINST VALUER FOR NEGLIGENCE AND MISREPRESENTATION.

An intending mortgagor, at the request of the solicitors of an intending mortgagee, applied to a firm of valuers for a valuation of the property proposed to be mortgaged. A valuation of the sum of £3,000 was sent in by the valuers direct to the mortgagee's solicitors, and the mortgage was subsequently carried out. Default having been made in payment by the mortgagor, and a just having resulted to the mortgagee, he commenced an action against the valuers for damages for the loss sustained through their negligence, misrepresentation, and breach of duty. The court held, on the evidence that the valuers knew at the time the valuation was made that it was for the purpose of an advance, and that the valuation was made in fact no valuation at all. *Held*, that, under the circumstances, the defendants were liable on two grounds: (1) that they independently of contract, owed a duty to the plaintiff which they failed to discharge; (2) that they had made reckless statements on which the plaintiff had relied. (*George v. Everingham, 5 L. R. Ex. 1; and Rees v. Fender, 11 Q. B. D. 525, followed. Park v. Derry, 37 Ch. D. 541, reversed. Cane v. Wilson, 39 Ch. D. 50; 57 L. J. Ch. 1,084; 37 W. R. 23. Chitt, J.*)

NUISANCE.

REMOVAL OF USE.

Injunction was granted to restrain an hotel keeper from using a stove which he had put up, the heat of which rendered a cellar in the adjoining house unfit for the storage of wine. (*Reichardt v. Meisters, L. R. 43, Ch. D. 1.*)

PUBLIC HEALTH ACT.

1. STRIP OF LAND ADJACENT TO HIGHWAY—NOTICE TO FRONTAGERS TO PAVEMENT.

Owners of land adjoining a highway repairable by the inhabitants at large erected houses on their land, and threw open to the highway a strip of land in front of them. *Held*, that the houses with the strip of land in front, together formed a "street" within the meaning of sec. 140 of the Public Health Act, 1875 (28 and 29 Vict. c. 50), which the urban sanitary authority, within whose district it was situated, could compel the frontagers to pave, channel, and keep under the provision of that section. (*Reichardt v. Meisters, 57 L. J. Ch. 534; 58 L. T. 315; 52 J. P. 756, D.*)

2. BUILDINGS—OPEN SPACE AT REAR OF DWELLING HOUSES—DISTANCE REQUIRED TO OFFSHORE PROPERTY.

The L. Improvement Commissioners made a bye-law that every person erecting a new building for a dwelling-house should provide in the rear an open space exclusively belonging thereto, to the extent of at least 150 square feet, and should expose the distance across such open space between every such building and the opposite property at the rear to be at least 30 feet.

P. erected a new building to be used as a dwelling-house; in the rear there was a space exclusively belonging thereto of 100 square feet; the distance across such open space to the opposite house was 60 feet, but as P.'s land was bounded by a public street, the distance from the houses of P. to the edge of the street was only 8 feet. *Held*, that on the true construction of the bye-law the public street was the opposite property, and that P. had committed a breach of the bye-law. (*Jones v. Parry, 57 L. T. 422; 52 J. P. 69, D.*)

3. VALIDITY OF BYE-LAW—PROHIBITION OF USE OF BUILDINGS UNFIT FOR HUMAN HABITATION.

An urban sanitary authority made the following bye-law under the Local Government Act, 1858 (all bye-laws made under which are deemed to be bye-laws under the Public Health Act, 1875, if not inconsistent with any of the provisions of that Act):—"No new houses shall be occupied until the house drainage has been made and completed, nor shall such house have been certified by the Local Board, or other officer authorized to give such certificate, after examination, to be in every respect fit for human habitation in their or his opinion." *Held*, that the bye-law was reasonable and not inconsistent with any of the provisions of the Public Health Act, 1875, and therefore valid. (*Harrod v. Division Local Board, 55 L. T. 701; 52 J. P. 679, D.*)

4. BYE-LAWS—CONSTRUCTION AND VALIDITY—NEW STREET—WIDTH.

The bye-laws of a local board provided (4) "Every person who shall lay out a new street shall so lay out such street that the width thereof shall be forty feet at its least." (5) "Every person who shall construct a new street shall provide, at one end, at least, of such street an entrance of a width equal to the width of such street, and open from the ground upwards." *Held*, that the sixth bye-law was *intra vires* and reasonable, and that it provided a hindrance from constructing a new street upon his land until he had provided an "entrance" to the new street of the specified width, even though that entrance could only be made upon the land of another person over whom he had no control. *Held* also, that the "construction" of a new street included the building of the houses abutting on it, and, consequently, that the landowner could not, until an adequate entrance had been provided, erect houses abutting on the proposed new street. (*Harrod Local Board v. Fox, 55 L. T. 602.*)

5. CARRYING WATER MAINS—"BURSTING" REPORT OF.

Section 61 of the Public Health Act, 1875, provides that where a local authority supply water they shall have the same powers for carrying water mains as they have for carrying sewers. Section 16 provides that any local authority they carry any sewer, after giving reasonable notice in writing to the owner or occupier (if on the report of the surveyor it appears necessary), into, through or under any lands within their district. *Held*, that the "surveyor" is the person duly appointed surveyor under sec. 189, and no other, not even an engineer of the greatest experience when the local authority may think fit to consult; and, further, that the "surveyor" is the person to determine on the necessity, and therefore the necessity is a mere fact judgment in the matter the Court will not interfere. (*Levine v. Westminster-Metropolitan Local Board, 40 Ch. D. 50; 58 L. J. Ch. 50; 57 W. R. 1, D. Stirling, J.*)

REPAIRS.

LEASE BY TENANT FOR LEASE—PERMANENT WASTE.

A tenant for years is liable for permanent waste, and therefore a lease under a settlement by a tenant for life under 40 & 41 Vict. c. 18, sec. 46, exempting the lessee from liability for "fair wear and tear and damage by tempest," in void, as "made without consideration of waste." In granting such a lease the tenant for life has a discretion as to what are proper covenants, and the lease will be void only when there is an express omission of covenant. (*Davies v. Davies, (No. 2) 35 Ch. D. 439; 57 L. J. Ch. 1,180; 55 L. T. 334; 55 W. R. 39. Kekewell, J.*)

THE SETTLED LAND ACT, 1890.

(32 AND 33 VICT., CH. 36).

Sec 3 provides that any building lease, and any agreement for granting building leases, under the Settled Land Act, 1882, may contain an option, to be exercised at any time within a prescribed number of years not exceeding ten, for the lessee to purchase

SALES OF PROPERTY.

1889.

I. LONDON & DISTRICT. II. PROVINCIAL. III. WALES. IV. SCOTLAND.

I.—LONDON AND DISTRICT.

ACTON

- 28 & 29, Myrtle Road, Freehold, Rent £16 per annum (A. H. Lawrence) .. £120
 28 & 29, Myrtle Road, Freehold, Rent £16 per annum (A. H. Lawrence) .. £120
 28 & 29, Myrtle Road, Freehold, Rent £16 per annum (A. H. Lawrence) .. £120
 28 & 29, Myrtle Road, Freehold, Rent £16 per annum (A. H. Lawrence) .. £120
 28 & 29, Myrtle Road, Freehold, Rent £16 per annum (A. H. Lawrence) .. £120

ADELPHI.

- 7, York Road, Acton, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120

ANERLEY.

- Brimsford Villa, Freehold, 12 years, G. R. £100

BARNET.

- 205 & 206, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 205 & 206, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 205 & 206, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 205 & 206, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 205 & 206, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120

BARNSTAPLE.

- 61, The Y, Barnstaple, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120
 61, The Y, Barnstaple, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120
 61, The Y, Barnstaple, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120
 61, The Y, Barnstaple, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120
 61, The Y, Barnstaple, Freehold, estimated rental £15 per annum (A. H. Lawrence) .. £120

BATTERSEA.

- York Road, G. R. £100 per annum (A. H. Lawrence) .. £120
 10, York Road, G. R. £100 per annum (A. H. Lawrence) .. £120
 10, York Road, G. R. £100 per annum (A. H. Lawrence) .. £120
 10, York Road, G. R. £100 per annum (A. H. Lawrence) .. £120
 10, York Road, G. R. £100 per annum (A. H. Lawrence) .. £120

BAYSWATER

- 69, Prince's Square, 63 years, G. R. £100 (Debenham) .. £120
 69, Prince's Square, 63 years, G. R. £100 (Debenham) .. £120
 69, Prince's Square, 63 years, G. R. £100 (Debenham) .. £120
 69, Prince's Square, 63 years, G. R. £100 (Debenham) .. £120
 69, Prince's Square, 63 years, G. R. £100 (Debenham) .. £120

BELGRAVIA

- South Belgrave, 40, St. George's Square, 22 years, 10 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 40, St. George's Square, 22 years, 10 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 40, St. George's Square, 22 years, 10 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 40, St. George's Square, 22 years, 10 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 40, St. George's Square, 22 years, 10 years, G. R. £100 per annum (A. H. Lawrence) .. £120

BERMONDSEY.

- 11, Colwood Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11, Colwood Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11, Colwood Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11, Colwood Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11, Colwood Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120

BETHNAL GREEN.

- 19 & 20, Colliage Street, Freehold (C. & R. T. 1889) .. £120
 19 & 20, Colliage Street, Freehold (C. & R. T. 1889) .. £120
 19 & 20, Colliage Street, Freehold (C. & R. T. 1889) .. £120
 19 & 20, Colliage Street, Freehold (C. & R. T. 1889) .. £120
 19 & 20, Colliage Street, Freehold (C. & R. T. 1889) .. £120

BLACKFRIARS

- 19, 19 & 20, Hatfield Place, Freehold, 22 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 19, 19 & 20, Hatfield Place, Freehold, 22 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 19, 19 & 20, Hatfield Place, Freehold, 22 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 19, 19 & 20, Hatfield Place, Freehold, 22 years, G. R. £100 per annum (A. H. Lawrence) .. £120
 19, 19 & 20, Hatfield Place, Freehold, 22 years, G. R. £100 per annum (A. H. Lawrence) .. £120

BLACKHEATH.

- Ulster Road, a piece of Freehold land (W. H. 1889) .. £120
 4 & 6, Myrtle Road, Freehold (W. H. 1889) .. £120

BLOOMSBURY

- 17, Cranford Road, Freehold, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 17, Cranford Road, Freehold, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 17, Cranford Road, Freehold, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 17, Cranford Road, Freehold, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 17, Cranford Road, Freehold, 22 years, G. R. £100 (A. H. Lawrence) .. £120

BOROUGH.

- 70, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 70, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 70, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 70, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120
 70, High Street, Freehold, Rent £100 per annum (A. H. Lawrence) .. £120

BOW.

- 47, Trocadero Road, Freehold (W. H. 1889) .. £120
 47, Trocadero Road, Freehold (W. H. 1889) .. £120
 47, Trocadero Road, Freehold (W. H. 1889) .. £120
 47, Trocadero Road, Freehold (W. H. 1889) .. £120
 47, Trocadero Road, Freehold (W. H. 1889) .. £120

BRIXTON.

- 11 & 12, Hillard Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11 & 12, Hillard Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11 & 12, Hillard Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11 & 12, Hillard Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120
 11 & 12, Hillard Road, 34 years, G. R. £100 (A. H. Lawrence) .. £120

BROCKLEY.

- 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120

BROWLEY.

- 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120
 10, Manor Road, 22 years, G. R. £100 (A. H. Lawrence) .. £120

HYDR PARE

- | | | |
|-----|---|--------|
| 20, | Hyde Park Gate, and stabling, 49 years,
G. R. & Co. (Dunlop & Co.) | £1,500 |
| 21, | Emmerson Gardens, unoccupied been 24 years,
G. R. & Co. | £1,500 |
| 22, | Pomander Square, Freehold, Rent £250 per
annum (Elliot, Son & Bynoe) | £7,400 |

ISLINGTON

- | | | | |
|----|----------------------------------|----|----|
| 16 | Barnyard, Red, 31 years, G. R. 2 | 10 | 10 |
| 17 | Headgate | 11 | 11 |
| 18 | Headgate, 33 years, G. R. 3 | 12 | 12 |
| 19 | Headgate, 33 years, G. R. 3 | 13 | 13 |
| 20 | Headgate, 33 years, G. R. 3 | 14 | 14 |
| 21 | Headgate, 33 years, G. R. 3 | 15 | 15 |
| 22 | Headgate, 33 years, G. R. 3 | 16 | 16 |
| 23 | Headgate, 33 years, G. R. 3 | 17 | 17 |
| 24 | Headgate, 33 years, G. R. 3 | 18 | 18 |
| 25 | Headgate, 33 years, G. R. 3 | 19 | 19 |
| 26 | Headgate, 33 years, G. R. 3 | 20 | 20 |
| 27 | Headgate, 33 years, G. R. 3 | 21 | 21 |
| 28 | Headgate, 33 years, G. R. 3 | 22 | 22 |
| 29 | Headgate, 33 years, G. R. 3 | 23 | 23 |
| 30 | Headgate, 33 years, G. R. 3 | 24 | 24 |
| 31 | Headgate, 33 years, G. R. 3 | 25 | 25 |
| 32 | Headgate, 33 years, G. R. 3 | 26 | 26 |
| 33 | Headgate, 33 years, G. R. 3 | 27 | 27 |
| 34 | Headgate, 33 years, G. R. 3 | 28 | 28 |
| 35 | Headgate, 33 years, G. R. 3 | 29 | 29 |
| 36 | Headgate, 33 years, G. R. 3 | 30 | 30 |
| 37 | Headgate, 33 years, G. R. 3 | 31 | 31 |
| 38 | Headgate, 33 years, G. R. 3 | 32 | 32 |
| 39 | Headgate, 33 years, G. R. 3 | 33 | 33 |
| 40 | Headgate, 33 years, G. R. 3 | 34 | 34 |
| 41 | Headgate, 33 years, G. R. 3 | 35 | 35 |
| 42 | Headgate, 33 years, G. R. 3 | 36 | 36 |
| 43 | Headgate, 33 years, G. R. 3 | 37 | 37 |
| 44 | Headgate, 33 years, G. R. 3 | 38 | 38 |
| 45 | Headgate, 33 years, G. R. 3 | 39 | 39 |
| 46 | Headgate, 33 years, G. R. 3 | 40 | 40 |
| 47 | Headgate, 33 years, G. R. 3 | 41 | 41 |
| 48 | Headgate, 33 years, G. R. 3 | 42 | 42 |
| 49 | Headgate, 33 years, G. R. 3 | 43 | 43 |
| 50 | Headgate, 33 years, G. R. 3 | 44 | 44 |
| 51 | Headgate, 33 years, G. R. 3 | 45 | 45 |
| 52 | Headgate, 33 years, G. R. 3 | 46 | 46 |
| 53 | Headgate, 33 years, G. R. 3 | 47 | 47 |
| 54 | Headgate, 33 years, G. R. 3 | 48 | 48 |
| 55 | Headgate, 33 years, G. R. 3 | 49 | 49 |
| 56 | Headgate, 33 years, G. R. 3 | 50 | 50 |
| 57 | Headgate, 33 years, G. R. 3 | 51 | 51 |
| 58 | Headgate, 33 years, G. R. 3 | 52 | 52 |
| 59 | Headgate, 33 years, G. R. 3 | 53 | 53 |
| 60 | Headgate, 33 years, G. R. 3 | 54 | 54 |
| 61 | Headgate, 33 years, G. R. 3 | 55 | 55 |
| 62 | Headgate, 33 years, G. R. 3 | 56 | 56 |
| 63 | Headgate, 33 years, G. R. 3 | 57 | 57 |
| 64 | Headgate, 33 years, G. R. 3 | 58 | 58 |
| 65 | Headgate, 33 years, G. R. 3 | 59 | 59 |
| 66 | Headgate, 33 years, G. R. 3 | 60 | 60 |
| 67 | Headgate, 33 years, G. R. 3 | 61 | 61 |
| 68 | Headgate, 33 years, G. R. 3 | 62 | 62 |
| 69 | Headgate, 33 years, G. R. 3 | 63 | 63 |
| 70 | Headgate, 33 years, G. R. 3 | 64 | 64 |
| 71 | Headgate, 33 years, G. R. 3 | 65 | 65 |
| 72 | Headgate, 33 years, G. R. 3 | 66 | 66 |
| 73 | Headgate, 33 years, G. R. 3 | 67 | 67 |
| 74 | Headgate, 33 years, G. R. 3 | 68 | 68 |
| 75 | Headgate, 33 years, G. R. 3 | 69 | 69 |
| 76 | Headgate, 33 years, G. R. 3 | 70 | 70 |
| 77 | Headgate, 33 years, G. R. 3 | 71 | 71 |
| 78 | Headgate, 33 years, G. R. 3 | 72 | 72 |
| 79 | Headgate, 33 years, G. R. 3 | 73 | 73 |
| 80 | Headgate, 33 years, G. R. 3 | 74 | 74 |
| 81 | Headgate, 33 years, G. R. 3 | 75 | 75 |
| 82 | Headgate, 33 years, G. R. 3 | 76 | 76 |
| 83 | Headgate, 33 years, G. R. 3 | 77 | 77 |
| 84 | Headgate, 33 years, G. R. 3 | 78 | 78 |
| 85 | Headgate, 33 years, G. R. 3 | 79 | 79 |
| 86 | Headgate, 33 years, G. R. 3 | 80 | 80 |
| 87 | Headgate, 33 years, G. R. 3 | 81 | 81 |
| 88 | Headgate, 33 years, G. R. 3 | 82 | 82 |
| 89 | Headgate, 33 years, G. R. 3 | 83 | 83 |
| 90 | Headgate, 33 years, G. R. 3 | 84 | 84 |
| 91 | Headgate, 33 years, G. R. 3 | 85 | 85 |
| 92 | Headgate, 33 years, G. R. 3 | 86 | 86 |
| 93 | Headgate, 33 years, G. R. 3 | 87 | 87 |
| 94 | Headgate, 33 years, G. R. 3 | 88 | 88 |
| 95 | Headgate, 33 years, G. R. 3 | 89 | 89 |
| 96 | Headgate, | | |

KENNINGTO

- 11 to 25, Faldred Grove exp. res. from 40 years,
G. R. Lys here 6 1/2 ft. per cent. 1913 1914
16 to 22 (even), Strick Street, Fossil 1/2 ft. 1914 1915
per annum (Harland & See) 1905
12a, Kensington, Park Road, Coppyhold, Rest 1910

KENSINGTON

- 9 Gloucester Road, unexpired term 7 years,
 G. R. 125, Rent $\frac{1}{2}$ per annum (Halter 6)
 10 to 20 Larch, Garden, unexpired term 6
 11 1/2 years, G. R. 475, Rent $\frac{1}{2}$ per annum
 12 1/2 years, G. R. 475, Rent $\frac{1}{2}$ per annum
 North Kensington, 10 to 15 (over 10) ft., St. Law-
 rence, unexpired term 7 years, G. R. 125,
 estimated rental $\frac{1}{2}$ per annum (Meyers, P.
 13
 14
 15 South Kensington, 20, Kewbury Cottage, 7 years,
 G. R. 26, Rent $\frac{1}{2}$ per annum (Halter, P.
 16 to 18 (even), Kensington Gardens, unexpired term
 19 1/2 years, G. R. 125, Rent $\frac{1}{2}$ per annum (Halter, P.
 20 West Kensington, 20, Westwick Gardens, Freshford
 estimated rental $\frac{1}{2}$ per annum (Green, P.
 21
 22 West Kensington, 10, Whitmore Road, Freshford,
 estimated rental $\frac{1}{2}$ per annum (Green, P.
 23 Cotham Road, by years, G. R. 124 (W. 2,
 24
 25 6 ft., Vesler Road, 22 years, G. R. 250 (Roger,
 26 1/2 years, G. R. 250, Rent $\frac{1}{2}$ per annum (Roger,
 27 7 years, Rent, unexpired term 7 years, G. R. 125,
 28 6 1/2 years, Rent 150 (Roger, Chapman &
 29
 30 Two leasehold references, 45 & 47 Kent's Court
 31 1/2 years, G. R. 125, Rent $\frac{1}{2}$ per annum (Halter,
 32 1/2 years, unexpired term 45 (Fowler &
 33
 34 Pitt Street, unexpired term 21 years, G. R. 125,
 35 1/2 years, Rent 150 per annum (P. & H. L.,
 36
 37 North Kensington, 7 ft., 6, Adair Road, unex-
 38 1/2 years, G. R. 125, Rent $\frac{1}{2}$ per annum
 39 (T. C. Klig).

KENTISH TOWNSHIP

- | | | |
|----|---|------|
| 29 | Wilket Road, 22 years, G. R. £5 (Driver & Perfect) | £100 |
| 30 | Torbay Street, 23 years, G. R. £6 (A. Booth) | £20 |
| 31 | 45, Alma Street, unexpired term 25 years, G. R. £10, Rent £50 per annum (Bodman & Rivers) | 60 |

LESSNESS-HEATH

- 19 & 20, Woolwich Road, Freetield (F. J. Bailey) £398
 15 & 16, Woolwich Road, Freetield (F. J. Bailey) £338
 41 & 42, Woolwich Road, Freetield (F. J. Bailey) £425
 Ground rent of £4, reversion in 63 years (F. J. Bailey) £170
 "ground rent of £3, reversion in 63 years (F. J. Bailey) £130

LEWISHAM

- [illegible]

LIMEHOUSE

- | | | | |
|----|--|---------|------|
| 30 | K. 1, Taylor Place, 34 years, G. R. 42 | GC. C. | 2750 |
| 31 | " " " " " " " " " " " " " " | " " " " | 2750 |
| 32 | 49, A. Rhodswell Road, 30 years, G. R. 43 | " " " " | 2750 |
| 33 | " " " " " " " " " " " " " " | " " " " | 2750 |
| 34 | 61, E. & Gp. Salzman's Lane, Coppyland (Niddy) | " " " " | 2750 |
| 35 | " " " " " " " " " " " " " " | " " " " | 2750 |
| 36 | India Dock Road, 29 & 33, unexpired term | " " " " | 2750 |
| 37 | 80 years, G. R. 44 per annum, Rent 445 | " " " " | 2750 |
| 38 | (An Ruckman) | " " " " | 2750 |
| 39 | St. Anne Street, 106 1/2, Eastfield Street, | " " " " | 2750 |
| 40 | unexpired term, 30 years, G. R. 45 | " " " " | 2750 |
| 41 | 100, 101 per annum (N. Webb & N. Harding) | " " " " | 2750 |
| 42 | Kingsmead's Fields, Finchfield, Rent 450 m. | " " " " | 2750 |
| 43 | per annum (Jones & Son) | " " " " | 2750 |

MAIDA HILL

- 147, Canale Street, 33 years, G. R. Ls 208. (R.
Sumner) " " " " Lysio
P. Portland Road, unexpired term 66 years,
G. R. Lys Rest Lys per annum (Deborah).

MATHIA VAFI

- | | |
|--|--------|
| 25, Luxark Villas, unexpired term 60 years, G. R. Co., Rent £48 per annum (Ridley, Sec 8
(1914)) | 4480 |
| 26, Randolph Crescent, unexpired term 70 years,
G. R. Co., Rent £120 per annum (Wardham
& Co.) | £1,120 |
| 28, Randolph Crescent, unexpired term 50 years,
G. R. Co., estimated rental £120 per annum
(Wardham & Co.) | £1,000 |

MANOR PARK

- 3 to 9, E. Simola Terrace, 95 years, G. H. 44
(Pantheon & North) " " " Life

MAYTEFRON

- | | | |
|-----------|---|--|
| 8 & 9, | Upper Belmont Street, 20 years, G. R. | \$6 |
| | (N. F. Coover) | |
| 10 | Holloway Street, 25 years, G. R. | \$555 |
| | (W. L. Collier) | |
| 11 | Holloway Street, 25 years, G. R. | \$750 |
| | (G. R. Lyle) | |
| 12 | Cumford Street, 16 years, G. R. | \$1,000 |
| | (L. Wingard) | |
| Rental of | £25 per annum, six years (Wood & | |
| | Steeding) | |
| 13 | Upper Belmont Street, 25 years, G. R. | \$750 |
| | (N. F. Colver) | |
| 14 | Upper Belmont Street, 25 years, G. R. | \$1,000 |
| | (W. L. Collier) | |
| 15 | N. Richmond Street, 23 years, G. R. | \$1,000 |
| | (K. K. Lyle) | |
| 16 | Souder Street, 20 years, G. R. | \$10 a year, till
the tract was sold according to Deeds |
| | Book 1, page 100 | \$100 |
| 17 | Maryborough Road, and W. Abner Hunt, ex-
cess term in years, G. R. | \$1,000 Rent £200 |
| 18 | Maryborough Road, and stable, Fencland | |
| Rent | £20 per annum (R. Reid) | \$1,000 |

JULY PAI

- 5b. Queen Margaret's Grove, unexpired term 60 years, G. R. £4 12s., Rent £4: 12s. per annum (Wagstaff & Norman) .. £123

NORFOLK

The residence called "Spring Bank," occupied
 over 68 years, O. R. 24 6a Rd. (Walling &
 Wilson) 400

West Norewood, Freehold Ground Rents amounting to £199 tm. per annum, secured upon 66 houses in Thornlow Road, at 60 years' purchase (Adrian

Upper Newwood, 63, Belvedere Road, Freshfield,
Rent £55 per annum (Munell & Rowe) £430
Lower Newwood, 15 to 25 (odd), Birchclanger Road,
Freshfield, Rent £65 per annum (Munell & Rowe) £430

NOTTING-HILL

115. Perobello Road, 74 years, G. R. L³ (Mearns) L³
 117. 1113. Chertsey Road, 63 years, G. R. L³ L³
 118. G. R. L³ Road, unoccupied since 39 years L³
 119. G. R. L³ Road L³ at per annum (Weatherall) L³
 120. North Road, 66 years, G. R. L³, Rent L³ L³
 121. For mores (T. Turner) L³
 122. 104, Kensington Park Road, unoccupied since 19 years, G. R. L³, Rent L³ per annum: L³
 (H. J. & Co.) L³

LD FORD EQ.

- | | |
|--|-----|
| 123, The Grangers' Arms, near-near, Freehold
(C. C. & T. Murrel) | 600 |
| Under Road, G. R. of Lee st. 61., reversion in 65
years (Phillips, Lee, & Davies) | 475 |
| 44 (w.c.) Arden, hotel, wharfedale town 72
years, G. R. 18th st., Reet 125th year p. 2
(Wadler & Reuter) | 600 |
| 146, Arden Row 1 Freehold 11 1/2 1/2 1/2 per a.m.
(Reynolds & Mason) | 200 |
| 149, 244, & 145, Under Road, Freehold, Naze | |

LD KENT RO

- 643 & 645, unexpired term 29 years, G. R. 43 rps, 4350
Real 43 per million (Western and Sea)
64 & 70, Railway Road, unexpired term 20 years,

OXFORD STREET

- 19, Castle Street, unexpired term 18 years, G. R.
Lift, Rent £40 per annum (Kilgill, Son &
Beyton) £1,360
20, Argyll Street, The Argyle Restaurant, Free-
hold £1,360

Freehold, N. J.

- across (S. B. Clark & Son) £1 10
SAFFINGTON.
 Leopoldi Reminisc., 38, Clarendon Gardens
 (Oliver & Hartman) ————— Agn
 12 & 13, Bathurst Street, unexpired term 45 years,
 no G.R. 25, Rent £50 per annum (Shureham &
 Reeves) ————— £3 10
 99, Woodchester Street, unexpired term 50 years,
 no G.R. 25, Rent £100 per annum (W. Hall) £40
 5, Chappell Lane, Fenchurch, Rent £60 per annum
 (Fletcher, Son & Neale) ————— £100
 27, Harcourt Street, unexpired term 35 years,
 G. R. 25, Rent £35 (Newham & Harding) £40

— *from C. B. C.*

- [illegible]

PENTONVILLE

- 21, Baker Street, 23 years, G. R. Lat (E. & S.
Semi) 1000
22, K. 21, Baker Street, 23 years, G. R. Lat (E. & S.
Semi) 1000

PICCADILLY
 14. Feb. 1844.

109. The Leuze, unexpired term 1½ years.
Rent £200 per annum (Beal, Son & Chastres)
£1,240

[PROVINCIAL.]

ROPLEY

Freehold estate, known as "Littlegrove," comprising a family residence and farm of 150 acres
(J. Harbo) 100

Freehold building estate of about 1½ acres, situated on Hill Lane (Penney & Clarke) ..	£4,000
Two Freehold plots on the Oldman Road Lane (Cooper) ..	£2,000
10½ King Street, Freehold (Penney & Clark) ..	£1,500
5, King Street, Freehold (Penney & Clark) ..	£1,200
70, Grange Street, Freehold (Penney & Clark) ..	£1,200
4, Mansfield Street, Freehold (Penney & Clark) ..	£1,000

48 a. 37. 18 p. Freehold. Rental £15 19s. per annum

Two shops and dwelling houses in Bridge Street,
Freehold (Penny & Clark) £400
Two dwelling-houses, with carpenter's shop and
stables, High Street, Freehold, Rent £30 per
annum (Penny & Clark) £100
A cottage and piece of land on Water Road,

to 4, St. James's Terrace, Freshfield, Rent 400p	
per annum: 1 & 2, St. James's Terrace	
(J. Harris)	480p
1 & 4 St. James's Terrace (J. Harris)	120p
1, Seagrass Road, Freshfield (H. Warren)	400p
Two Freehold interests in Bridge Street (H	

NEREFORD

Mayford Streets (G. W. Meats) \$3.10

HERTFORDSHIRE
WIFE

New Road (R. Thoroughfare)	..	..	6,175
----------------------------	----	----	-------

(Debenham, Tresson, Farmer & Bridgewater)

12. Freehold villa residences in Park Road, Rental £95 per annum, and three Freehold houses in Albert Street, Rental £44 a year (W. Brown & Co.).	£1,915
13. Freehold houses in Brook Street (W. Brown & Co.)	£1,375

IDENTIFICATION

shop, warehouses and buildings, Freehold.	
annual rent \$26 (Daley & son)	\$100
1 mile Sashely, near Hestertown, "Demick's Farm,"	
area 68 a. 3 f. 13 p., Freehold (Daley &	
Son)	\$1,000

A large shop and dwelling house together with two cottages on land 1/28. Ac. situated in Erack Street (P. J. Maddison) £375

Dwyer-Holmes and Son, 17, 30 p., Copyhold
 (Dwyer & Son) £80
 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 8

BECKENHAM

The residence called "Chaucerleigh," 27 years, G. R. Lyle (Builder, Payne & Lepper) £1,400
Kent House Road - The Freshford residence
"Mossburn" (J. J. Deverell) " " £150
"Hyde House," in Brockley Road, Lasey 20 years,
G. R. Lyle (Builder, Payne & Lepper) £1,000
Two residences in Lombard Road, unoccupied
27 years, G. R. Lyle the architect (Dewant &
Lyle) £1,000

BRONLEY

88, St. Leonard Street, 80 years, G. R. & J. G.	
(A. P. Present)	£38
90, St. Leonard Street 80 years, G. R. & J. G. R.	
(A. P. Present)	£43
15, 20 & 21, Grace Street, Freehold (J. G. & A.	
Present)	£80
Endowment of Freehold land, area 50 acres	
(Road & Co.)	£2,000
Freehold, 100 acres, 100 years, 100 years	
Windermere Road (Baker, Payer & Lepper)	£1,000

1. 5. 2. Chapel des Grans Farcidols (Vieux Ternut) $\frac{1}{2}$ -
 2. 5. 2. Chapelle de la Vierge (Chapelle des Grans Farcidols)

4. The Foreign Affairs Committee, (Chairman: Arthur J. Altmeyer)

2 to 3, Victoria Road, Freehold, Rent £38 per annum (Newton, Teet & Gilbert)

^a Henricks Farm.¹⁴ Fossiliferous, and some black. 28.

DOVER

11, Commercial Quay, Exeter, U. R.	(Worsfold & Hayward)	£400
Charlton—43, Peter Street, Fifehead (Worsfold & Hayward)		£475
Haceland—5 A & 5, Priamere Road, Fifehead (Worsfold & Hayward)		£350
2 & 3, Union Row, Fifehead, Rent £40 per annum (Worsfold & Hayward)		£450

5. Marine Terrace, Golden Street, held for 14 years from 1905. G. R. £5. Rent £50 per annum (Mans. House & Site) £540

Thorne House and Farm, 364 s. e. 27. 30 p., Freshford,
Rent £312 per annum (Middx. C. 144, 23) 000
Enclosures of land, 43 a. 2 r. 24 p. Freshford
Rent £63 per annum (Middx. C. 144, 24) 445
Enclosure of marsh land, 30 a. 3 r. 20 p. Freshford
Rent £200 per annum (Middx. C. 144, 25) 000

A builder's yard and premises in Kneighrider Street, fronting 42 ft. 6 in. to the street, and depth about 33 ft., together with adjoining cottage (Tooted & Sons). £440

Fiveeen cottages in Water Lane, Freehold (Tooted & Sons).

sheds, man-horse, Rural £75 per acre
(Total & Sums) £1,100
Ten cottages in Union Street, gross rental £100
(Total & Sums) £100
A dwelling-house, machinist's shop, show-rooms,
offices, yard and premises, 64, King Street,
Fresford (Total & Sums) £1,375
9, Market Buildings, with shop, yard and premises,
£1,100

MARDEN
Cottage with garden, and a n. & s. of hedge and
meadow and Vee-houd, situate at Southbridge

RAINHAM

RAMSGATE
Yard and premises in King Street, Rental 10s. per week, Freehold (Vater & Son), £1,450
" Waterloo Works, East Cliff, 45s per annum, Freehold (Vater & Son), £1,450

Pier Road, Freshford, Ground Rents of £168 18s.
with reversion in 47 years (Charnock,
Gawworthy & Charnock) £4,785

[illegible]

73. Freshfield residence known as "Derpham," G. R. Alexander, Daniel, Sells & Co.
 74. Freshfield residence known as "The Grange," opposite the station of St. Stephen Street and South Street formerly known as the "St. John's Roman House," G. R. Alexander (Alexander, Daniel, Sells & Co.).
 75. Arden Hill, Clifton Wood, G. R. Alexander (Alexander, Daniel, Sells & Co.).
 76. Barmston Farm, G. R. Alexander, Daniel, Sells & Co.
 77. Gifford Road, G. R. Alexander, Daniel, Sells & Co.

Cherry Hill, West Hill (Alexander, Daniel,

The Radborough Manor Estate, consisting of
Mansions, kitchen, gardens, cottages, comprising
153 acres, Freshfield; also Freshfield
residence, known as "The Elms", 10 acres, with
ornamental grounds and stabling (Falconer,
Eds. Clark & Co.) £14,000
The Hill House, Freshfield (W. Knowles) .. £2,100
2 1/2 acres of building land on the north side of
the Strand and Chelford Road, Freshfield, rental
at per annum (W. Knowles) £13

HAVANT,
Freehold property known as the "Miller's Arms."

A piece of Freehold, orchard ground, about three-quarters of an acre in extent, situated near the Town Hall (A. C. Lewis) £425

Freemold estate, known as "Longfoss Lodge,"
comprising family mansion, and grounds of 30
acres (Rushworth & Coverts) £3,000

Walshampton Cottage and 4 a. n. r. 5 p., Freehold
(Beard & Co.)

Fairy Villa, Forton Road, with small pleasure garden (King & King) £700
Freehold corner shop, 35, Farnal Buildings, Forton

Stock of seven wood built cottages, 23 to 26, Perth.
Buildings with plots of garden land in trust
under a 99 year lease, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546

2) A 14. Ferrel Buildings, with plot of land on each side, frontage 75 ft. (King & Kangi)	£465
Part of Freehold building land, frontage 60 ft.	

SALES OF PROPERTY.

[PROVINCIAL.]

SOMERSETSHIRE

BATH.

22, Marlborough Buildings, Freehold, yearly for farm, Rent £10 7s. (Paved & Paved) £1,300

ILMINSTER

Freehold residence on West Street, with flower and kitchen garden, conservatory, and small piece of orchard ground, yard, carriage house, and stable, containing about 1 acre (No. 31, 32, 33) £1,200

STANTON WICK.

Feature land with cottage, garden and buildings, containing 5 a 1 r 38 p. (G. Nichols, Son & Alder) £1,000
Several closes of pasture and arable land, containing 23 a 2 r 7 (G. Nichols, Son & Alder) £1,000
Two pieces of pasture and arable land, containing 13 a 2 r 7 3/4 (G. Nichols, Son & Alder) £1,000
Several closes of pasture land, containing 68 a 1 r 37 3/4 (G. Nichols, Son & Alder) £1,000

SUTTON MALLETT

Freehold estate, known as Sutton Farm, 200 acres (C. R. Morris, Son & Pears) £1,400

TUNTON

Freehold dwelling house and garden in Waverley Terrace, Richmond Road (W. J. Villar) £1,000

STAFFORDSHIRE

WOLVERHAMPTON.

"Albion House," 83, Capeton Road, Freehold (Black & Chas) £1,000
15, Worcester Road South, Freehold (Black & Chas) £1,000

YOXALL

The Freehold property known as "Longcroft (Hill)" estate, comprising residence, kitchen garden, the freehold and under holding, containing 50 acres, Rent £100 per annum (H. J. & L. Smith) £1,000

SUFFOLK

IPSWICH

Leasehold premises, 38, Prince Street (Mr. Ross) £1,000
"Star Villa," Spring Road, with well & 10 a 1 r 38 p (Machin, Park & Walker) £1,000
Freehold second-hand premises, 22, No. 1, Cornhill, Ipswich, 2 a 1 r 38 p (Turner & Son) £1,000
Four Freehold dwellings, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452, 1454, 1456, 1458, 1460, 1462, 1464, 1466, 1468, 1470, 1472, 1474, 1476, 1478, 1480, 1482, 1484, 1486, 1488, 1490, 1492, 1494, 1496, 1498, 1500, 1502, 1504, 1506, 1508, 1510, 1512, 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3838, 3840, 3842, 3844, 3846, 3848, 3

INFORMATION, TABLES, ETC.

ANTIOXIDE.

Antioxide is a new material for the protection of all kinds of metal against rust, and for the preservation of wood and metal.

When mixed in proper proportion with paint, it will produce a splendid enamel at very small cost.

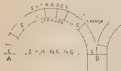
Its chief merit is its marvellous durability, and its resistance against all kinds of injurious actions. It has been tried with splendid result against the action of the most powerful acids. Antioxide is quite transparent like the best varnish.

THE ARCH.

By GEORGE FLETCHER, F.S.I.

An Arch is a structure composed of separate isostatic bodies having the shape of truncated wedges, and the vertical forces due to the weight of the materials are transmitted to the supports or abutments in a curved line, known as the curve of equilibrium.

The separate parts of an Arch are—



Abutment A Pier B. The points of support or of resistance to the forces of the Arch.

Voussoirs C The separate stones of which the Arch is composed—the lower ones being the springers, and the highest or middle one, the key stone.

Intrados. The inner surface or soffit.

Extrados. The outer surface or back.

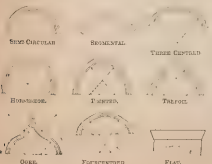
Springing. The point at which the Arch joins the piers.

Haunch. The sides between the springing and the crown.

Rise. The width between the supports at the springing line.

Rise. The vertical distance between the springing and the crown.

Arches are named from the curve, or under surface, presented by a section. The following figures show the usual form of Arches.—



When two or more Arches intersect they are called groined arches.

Inverted Arch. When placed under an opening or space to distribute the pressure.

Relieving Arch. When placed over a lintel to relieve it of the weight of the wall above.

Transfer Arch. When built under the hearth of a fire-place. Strength of Arches. For ordinary spans, and for ordinary purposes, the thickness of the Arch ring, as well as the dimensions of the abutments necessary to resist the thrust of the Arch, have been sufficiently determined by actual practice, and there is generally no necessity for calculating them.

The following is a table of thickness for Arches, in ordinary use in the War Department:—

TABLE OF THICKNESS REQUIRED FOR ARCHES.

SEMI-CIRCULAR ARCHES AND ARCHES OF 120 DEGREES.

The Arches are assumed to be built in well made hydraulic lime mortar.

The Bomb-proof Arches are considered sufficiently strong to bear any quantity of covering; but if the covering be not sufficient to protect them from actual contact with the bomb the thickness of the Arches may be required to be increased.

ORDINARY VAULTS, BRIDGES, &c.

SEMI-CIRCULAR.			ARCHES OF 120 DEG.		
Span up to	Block Stone.	Brick.	Block Stone.	Brick.	Block Stone.
ft.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
7	0 8	1 0 10	0 8	1 0 10	0 10
8	0 8	1 0 11	0 10	1 1 0	1 1 0
9	0 10	1 1 0	0 11	1 1 1	1 1 1
10	0 11	1 1 1	1 0	1 1 1	1 1 1
12	1 0	1 1 1	1 1	1 1 1	1 1 1
14	1 1	1 1 1	1 1	1 1 1	1 1 1
16	1 2	1 1 1	1 1	1 1 1	1 1 1
18	1 3	1 1 1	1 1	1 1 1	1 1 1
20	1 4	1 1 1	1 1	1 1 1	1 1 1
22	1 5	1 1 1	1 1	1 1 1	1 1 1
24	1 6	1 1 1	1 1	1 1 1	1 1 1

BOMB PROOF ARCHES.

SEMI-CIRCULAR.			ARCHES OF 120 DEG.		
Span up to	Block Stone.	Brick.	Block Stone.	Brick.	Block Stone.
ft.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
7	0 8	1 0 10	0 10	1 1 0	1 1 0
8	0 10	1 1 0	0 11	1 1 1	1 1 1
9	1 0	1 1 1	1 0	1 1 1	1 1 1
10	1 1	1 1 1	1 1	1 1 1	1 1 1
12	1 2	1 1 1	1 1	1 1 1	1 1 1
14	1 3	1 1 1	1 1	1 1 1	1 1 1
16	1 4	1 1 1	1 1	1 1 1	1 1 1
18	1 5	1 1 1	1 1	1 1 1	1 1 1
20	1 6	1 1 1	1 1	1 1 1	1 1 1
22	1 7	1 1 1	1 1	1 1 1	1 1 1
24	1 8	1 1 1	1 1	1 1 1	1 1 1
26	1 9	1 1 1	1 1	1 1 1	1 1 1
28	1 10	1 1 1	1 1	1 1 1	1 1 1
30	1 11	1 1 1	1 1	1 1 1	1 1 1

REGULATIONS AS TO ARCHES IN BUILDERS' ACT, 1855.

Sec. XXIV.—Party arches over Public Ways.

Every party arch, and every arch or floor over any public way, or any passage leading to premises in other occupation, shall be formed of brick, stone, or other incombustible materials: If an arch of brick or stone is used, it shall, in cases where its span does not exceed 6 feet, be of the thickness of 4½ inches at the least, but when its span exceeds 6 feet be of the thickness of 8½ inches at the least: If an arch or floor of iron or other incombustible material is used, it shall be constructed in such manner as may be approved by the District Surveyor.

Sec. XXV.—Arches under Public Ways.

Every arch under any public way shall be formed of brick, stone, or other incombustible materials: If an arch of brick or stone is used, it shall, in cases where its span does not exceed 10 feet, be of the thickness of 8½ inches at the least; where its span does not exceed 15 feet, it shall be of the thickness of 13 inches at the least; and where its span exceeds 15 feet, it shall be of such thickness as may be approved by the District Surveyor: If an arch or other construction of iron or incombustible material is used, it shall be constructed in such manner as may be approved by the District Surveyor.

ASPHALTES.

Asphalt requires to be laid on a good bed of concrete, and is spread in a liquid state and rolled to a smooth surface; or it is ground to powder, spread, and consolidated by ramming.

The bed for receiving asphalt must be thoroughly dry, and where it is to be attached to sloping or vertical faces the ground should be rough and a good key provided.

The most valuable deposits of asphaltic stone are in the Val de Travers, Canton of Neuchâtel; in the neighbourhood of Seyssel, department of Ain; at Bechelbronn, in Alsace; Limmer, near the city of Hanover, and Helle in Dittmarschen, in Holstein, &c.

BRICKWORK.

	Size.	Weight	per 1000
London Bricks	8½ × 4½ × 9 inches	5.6 lbs.	508 cwt.
Red Kils	8½ × 4½ × 9 "	7.0 lbs.	68 "
Welsh Fire Bricks	9 × 4½ × 9 "	8.0 "	72 "
Paving Bricks	9 × 4½ × 13 "	8.0 "	45 "
Dutch Clinkers	6½ × 8 × 13 "	1.6 "	14 "

The thickness of walls is regulated by the size of the bricks, and walls are 4½ inches or half-brick thick, 9 inches or one brick thick, 14 inches or one and a half bricks thick. The standard thickness of reduced brickwork is 14 inches or 14 bricks.

One rod of brickwork equals 27½ ft. super of reduced brick work; or 400 feet super of one brick walling, or 300 feet cube of brickwork (viz., 285 feet of bricks and 71 feet of mortar), or 1½ cubic yards; and requires 1 cubic yard of stone lime and 8½ yards of sand; or 14 yards of chalk lime and 8 yards of dirt, or 16 bushels of cement and 16 bushels of sharp sand; and takes 4,300 stock bricks, or 4,300 place bricks, or 5,370 stock bricks laid dry, or 4,900 stock bricks laid dry in walls and regular casework; it weighs about 15 tons, and requires about 130 gallons of water to set the mortar.

To reduce brickwork to standard thickness, deduct one-third of 9-inch wall, one-ninth of cubic foot of brickwork.

There are 500 stock bricks to one laid, 1,500 stock bricks to about 35 feet cube, 1,000 old bricks cleaned and stacked to about 70 feet cube, 18 bricks to one foot of reduced brickwork, 7 bricks to one foot super of facing, 10 bricks to one foot super of gauged arches, 65 bricks to one yard super in brickworking laid flat, and 3 of a cubic foot of mortar; 30 bricks to one yard super in brickworking on edge, and 3 of a cubic foot of mortar, 48 stock or paving bricks laid flat to one yard super of paving, 62 bricks on edge to one yard super of paving, 83 paving bricks on edge to one yard of paving, 125 Dutch clinkers laid flat to one yard super, or 140 Dutch clinkers on edge, or 186 Dutch clinkers, boring-zone

In dry weather the bricks should be thoroughly soaked before laying, to remove the particles of loose dust and prevent the absorption of the mortar by the mortar.

In a day of 10 hours a bricklayer can lay about 1,500 or 1,600 bricks, where the joints are left rough, about 1,000 when both faces are worked fair, or 500 when carefully pointed and faced with rubbed bricks.

Amongst the best varieties of red facing bricks in the London market may be mentioned the Hampshire bricks, known as the Parnian Reds, and the Rowlands Castle Red facings, which are of excellent weathering qualities and color, and the Rowlands Castle bricks are especially hard, strong and non-absorbent.

CARBOLINEUM AVERARIUS.

Carbolineum averarius is a fluid, which by its own action (as by painting or by summing wood in C. A.), will penetrate into the wood, and thoroughly protect it against decay, fungus, &c.

As it does not stop up the pores of the wood, there will be no danger of dryrot, so commonly met with in wood which has been tarred, painted, or creosoted.

Its application is extremely simple, requires no skill, and it can be applied in any position.

It is most useful for treating structures (sheds, posts, fencing, piles, &c., &c.) which may already show signs of coming decay.

The cost of applying the Carbolineum is so cheap, as to be of no account against the enormous saving effected by it.

Carbolineum is also a protection against dampness in walls, and deadly enemy against all kinds of insects and vermin.

CHAINS, BREAKING WEIGHT OF

To find the breaking weight in tons, divide the square of the diameter of one bar of the links in 10ths of an inch by 10 linked chains, and by 11 for welded chains.

Safe Working load of Chains 1-6th breaking weight.

Laid.				Studded.			
In.	Tons.	In.	Tons.	In.	Tons.	In.	Tons.
1	1.5	1 1/2	2.5	1 1/2	3.5	1 1/2	3.5
2	4.0	2 1/2	6.5	2 1/2	9.0	2 1/2	9.0
3	9.0	3 1/2	14.0	3 1/2	20.0	3 1/2	20.0
4	16.0	4 1/2	24.0	4 1/2	32.0	4 1/2	32.0
5	25.0	5 1/2	36.0	5 1/2	44.0	5 1/2	44.0
6	36.0	6 1/2	49.0	6 1/2	57.0	6 1/2	57.0
7	49.0	7 1/2	64.0	7 1/2	72.0	7 1/2	72.0
8	64.0	8 1/2	81.0	8 1/2	89.0	8 1/2	89.0
9	81.0	9 1/2	100.0	9 1/2	108.0	9 1/2	108.0
10	100.0	10 1/2	121.0	10 1/2	128.0	10 1/2	128.0

CHIMNEYS, FLUES HEARTHES, &c.

(Building Act, 1855.)

Chimneys built above the ground floor level, must not project from the wall more than the thickness of the wall, and must be constructed on corbels of brick, stone, or other incombustible material.

Chimneys and flues with doors 6 inches square may be constructed at any angle, otherwise as not less than 180 degrees, and must be properly rounded.

An arch of brick or stone or a bar of wrought iron must be built over every chimney opening. If the breast project more than 4 inches, and the jambs be of less width than 17½ inches, they must be tied in by an iron bar turned up and down at ends and built in 8½ inches on each side.

The back of every chimney opening from the hearth up to a height of 12 inches above the mantel, must be 8½ inches thick if in a party wall, or 4½ inches if not in a party wall.

The thickness of the upper side of every flue at an angle less than 45 degrees must be at least 8½ inches.

Chimney shafts must be carried up to a height not less than 8 feet above the roof, flat or gabled, measured at the highest point in the line of junction.

Chimney shafts, excepting those of furnace of any engine manufactory, &c., if exceeding in height six times the least width, shall be built with or bonded to another chimney not in the same line, or otherwise rendered secure.

Every chimney opening must have a hearth of stone or other incombustible material 12 inches at least higher than the width of opening, and 18 inches wide in front of breast. On all floors above the lowest floor, it must be laid wholly upon stone or iron bearers, or upon brick trimmers. The hearth of every chimney must be bedded solid on brick or other incombustible material, and be solid for a thickness of 7 inches at least.

No chimney breast or shaft built with, or in any party wall, may be cut away without the District Surveyor's certificate that it may be safely done.

No timber or woodwork may be placed nearer than 12 inches to the inside of any flue or chimney opening. Under any chimney opening within 18 inches from the upper surface of the hearth. Within 2 inches from the face of chimney or flue, where the substance of the brickwork or stonework is less than 8½ inches thick, unless the face of the brickwork or stonework is rendered. No wooden plugs may be driven nearer than 6 inches to the inside of any flue or chimney opening, nor any iron fastenings nearer than 2 inches.

CLOSE FIRES, PIPE FLUES, &c

(Building Act, 1855. Amendment, 1893.)

The flue under and 18 inches around, every stove or oven used for trade, shall be of incombustible and non-conducting materials.

No pipe conveying smoke, heated air, steam, or hot water, may be fixed against any building on the face next to any street, alley, mews, or public way. No pipe conveying heated air or steam, except at low pressure, may be fixed nearer than six inches to combustible materials; if conveying hot water, nearer than three inches; if conveying smoke or products of combustion, nine inches.

CONCRETE.

Concrete in damp situations should be made with hydraulic lime or Portland cement, and in walls, steps, pavements, &c., of Portland cement. Concrete was formerly thrown into trenches from a height of ten feet above to consolidate it. The

effect, however, was to separate the light and heavy portions in the fall, and this plan is now abandoned. Layers of concrete in trenches should be allowed to set before other layers are added, when time will not allow of this they should be well rammed as once before having time to set, but after commencing to set should not be disturbed.

CIRCLES—CIRCUMFERENCES AND AREAS OF.

To find a circumference of a circle of greater diameter, divide into two or more parts, and add together their tabulated circumferences.

To find area of a circle, whose diameter is double that of any in the table, multiply the tabulated area by four, if three times by nine, and so on.

Dia.	Cir.	Area.	Dia.	Cir.	Area.
1	3.14	784	11	34.55	55701
2	6.28	3142	12	38.16	99760
3	9.42	7068	13	39.96	108413
4	12.56	12566	14	43.97	131229
5	15.70	19635	15	46.98	151830
6	18.84	28183	16	50.99	172272
7	21.98	38348	17	54.00	192666
8	25.12	50168	18	57.01	212992
9	28.26	63658	19	60.02	233240
10	31.41	78956	20	64.03	253408
11	34.55	96036	21	67.04	273496
12	37.69	114912	22	70.05	293504
13	40.83	135684	23	73.06	313432
14	43.97	158362	24	76.07	333280
15	47.11	182956	25	79.08	353048
16	50.25	209472	26	82.09	372736
17	53.39	237924	27	85.10	392344
18	56.53	268322	28	88.11	411872
19	59.67	300668	29	91.12	431320
20	62.81	335064	30	94.13	450688
21	65.95	371512	31	97.14	470076
22	69.09	409912	32	100.15	489384
23	72.23	450264	33	103.16	508612
24	75.37	492576	34	106.17	527760
25	78.51	536848	35	109.18	546828
26	81.65	583080	36	112.19	565816
27	84.79	631272	37	115.20	584724
28	87.93	681424	38	118.21	603552
29	91.07	733536	39	121.22	622300
30	94.21	787608	40	124.23	640968
31	97.35	843640	41	127.24	659556
32	100.49	901632	42	130.25	678074
33	103.63	961584	43	133.26	696512
34	106.77	1023496	44	136.27	714870
35	109.91	1087368	45	139.28	733148
36	113.05	1153192	46	142.29	751346
37	116.19	1220968	47	145.30	769464
38	119.33	1290696	48	148.31	787502
39	122.47	1362376	49	151.32	805460
40	125.61	1435992	50	154.33	823338
41	128.75	1511544	51	157.34	841136
42	131.89	1589032	52	160.35	858854
43	135.03	1668456	53	163.36	876492
44	138.17	1749816	54	166.37	894050
45	141.31	1833112	55	169.38	911528
46	144.45	1918344	56	172.39	928926
47	147.59	2005512	57	175.40	946244
48	150.73	2094616	58	178.41	963482
49	153.87	2185656	59	181.42	980640
50	157.01	2278632	60	184.43	997718
51	160.15	2373544	61	187.44	1014716
52	163.29	2470392	62	190.45	1031634
53	166.43	2569176	63	193.46	1048472
54	169.57	2669896	64	196.47	1065230
55	172.71	2772552	65	199.48	1081908
56	175.85	2877144	66	202.49	1098506
57	178.99	2983672	67	205.50	1115024
58	182.13	3092136	68	208.51	1131462
59	185.27	3202536	69	211.52	1147820
60	188.41	3314872	70	214.53	1164098
61	191.55	3429144	71	217.54	1180296
62	194.69	3545352	72	220.55	1196414
63	197.83	3663496	73	223.56	1212452
64	200.97	3783576	74	226.57	1228410
65	204.11	3905592	75	229.58	1244288
66	207.25	4029544	76	232.59	1260086
67	210.39	4155432	77	235.60	1275804
68	213.53	4283256	78	238.61	1291442
69	216.67	4413016	79	241.62	1306990
70	219.81	4544712	80	244.63	1322458
71	222.95	4678344	81	247.64	1337846
72	226.09	4813912	82	250.65	1353154
73	229.23	4951416	83	253.66	1368382
74	232.37	5090856	84	256.67	1383530
75	235.51	5232232	85	259.68	1398598
76	238.65	5375544	86	262.69	1413586
77	241.79	5520792	87	265.70	1428494
78	244.93	5667976	88	268.71	1443322
79	248.07	5817096	89	271.72	1458070
80	251.21	5968152	90	274.73	1472738
81	254.35	6121144	91	277.74	1487326
82	257.49	6276072	92	280.75	1501834
83	260.63	6432936	93	283.76	1516262
84	263.77	6591736	94	286.77	1530610
85	266.91	6752472	95	289.78	1544878
86	270.05	6915144	96	292.79	1559066
87	273.19	7079752	97	295.80	1573174
88	276.33	7246296	98	298.81	1587202
89	279.47	7414776	99	301.82	1601150
90	282.61	7585192	100	304.83	1615018

CONTRACTS.

By H. G. DALLMANN, Solicitor.

Generally.—This word "agreement" in law is synonymous with the word "contract."

Contracts are of three kinds.
1. Contracts of record, i.e., judgments of Courts of Law and under seal, i.e., deeds, and
2. Contracts by speciality, i.e., by instruments in writing and under seal, i.e., deeds, and
3. Simple contracts, i.e., contracts in writing not under seal, or by word of mouth. Both these are called *parol contracts*.

Simple Contracts.—There are three essential elements in all simple contracts or agreements. 1. The consent. 2. The consideration. 3. The promise.

1. The consent is the legal term for both parties being of "one mind" as to the subject of the contract. They must absolutely agree as to the thing to be done or supplied, not only in substance but in all its details. Unless there be this absolute "consensus," there can be no complete or enforceable contract.

2. The consideration is that which one party is willing, and binds himself, to do or give in exchange for what the other party will do or give.

3. The promise is the engagement of one party to do or pay something for what the other engages to do or pay.

Simple contracts may be made by letters, and when, as the result of all the correspondence, the parties have arrived at one mind as to all three of the above mentioned essential elements, a complete contract is formed and can be enforced.

Sometimes two letters only constitute a contract, and therefore a letter in reply to one offering terms, accepting those terms, will constitute an agreement or contract. But if the second letter, while accepting the terms proposed by the first, adds something fresh, or "a new term," as it is called, then there is no contract. To make a contract by two letters, the second must unequivocally accept the terms proposed without adding any condition.

Pending the acceptance of an offer each party has a right to withdraw. When the offer is made by letter, the withdrawal must reach the person to whom the offer is made before the letter accepting it is posted.

When Contracts must be in Writing.—An agreement for a Building Lease must be in writing; also agreements for the sale of any interest in land, and agreements not to be performed within a year.

Performance within a Year.—A contract to build, if it is to be performed within a year, need not necessarily be in writing.

An agreement to be performed within a year is one possible of performance within that time, though it may not actually be so performed. An agreement not to be performed within a year is one in which its performance within that time is not contemplated by either of the agreeing parties, though it may be so performed.

Contract for Sale of Goods.—An agreement for the sale of goods of the value of £10 and upwards must be in writing, or it can only be enforced if the party agreeing to purchase accept and receive part of the goods, make a part payment, or give something equivalent to part performance of the agreement.

Contracts with Public Bodies.—Contracts with a Corporation must be under seal, unless the work to be executed is rendered necessary by the purpose for which the Corporation is created.

Trustees of building funds, and persons acting in a corporate capacity, entering on a contract accept a personal liability. A contract, however, may contain restrictions limiting their liability to the time during which they are to hold office, and to the amount of the fund at their disposal.

Contract contrary to Law.—A contract contrary to law cannot be enforced.

Damages and Penalties.—Where a contract stipulated for penalty for non-completion by a given time, and the time was exceeded, the Courts have refused to allow the full penalty to be enforced, but only allowed the damages actually sustained.

The sum stipulated for in a contract may be recovered as a debt, or, except in the case of a bond, full damages exceeding the penalty are recoverable, the penalty being regarded as auxiliary to a contract. If, however, the delay arises through any act of the employer, and there be no special stipulation to the contrary, he cannot recover damages in respect of such delay.

Daily and weekly damages for delays in building works are 468

debts that may be set off against the sum due to the builder whether so stipulated or not; or they may be recovered.

Payments under Contracts.

1. **Slight Deviation, &c., from Plans and Specification.**—A builder will not be prevented from recovering payments under the contract owing to slight deviations and omissions from plans and specifications, if the building has otherwise been substantially completed; but the employer may make a *sufficient deduction* to effect the alteration on completion of the work.

2. **Payment.—Certificate precedent to.**—A builder cannot maintain a claim upon the contract in the absence of an architect's certificate, which was a condition precedent to payment, notwithstanding it may have been wrongfully withheld, unless it can be proved that the architect was fraudulently in collusion with the employer, and by his procurement refused to certify.

3. **Under Disapproved Contracts.**—If a building contract remains unperformed by the fault of the builder he cannot maintain an action for payment for any part of his work, notwithstanding the issue of the architect's certificate, but the whole must be completed before he can sue for payment, except where a contract is entered into for the work to be paid for by measure and value, in which case he can demand payment during progress.

Rescind.—Right to.—Where either party to a contract refuses to perform the contract, or either party, in breach of the contract, is unable to perform it, the other party may rescind the contract.

If an employer, or another by his order, obstructs and prevents the performance of a contract, the builder at liberty to terminate upon his rights, or to rescind the contract and recover damages, viz., the difference between the cost to himself of the work and the amount of the contract, allowing a full deduction for the unexecuted work.

If the builder refuses to proceed with and complete his contract, the employer may determine the contract and proceed for damages.

Where a provision is contained in a contract giving power to the architect to determine in or default of a builder, his certificate is conclusive.

DAMP PROOFING

Hygienic Brick is a damp proof composition, used as damp course; in walls built in two thicknesses, with a half-inch cavity into which the composition is poured in a liquid state, as the work proceeds; and as a means to damp walls, applied in combination with purpose-made. It is especially adapted for the construction of cellar walls and water-tight tanks. Walls built with this composition are said to be of double the strength of ordinary brickwork.

The damp proof courses now in use are (1) Mineral asphalt half-inch thick, (2) asphalted felt, (3) perforated stone-ware bricks and two courses of slates in cement. Slates, however, are liable to crack, and hence not so reliable as the other damp courses.

Barley Slime Liquid is a waterproofing composition which combines mechanically with stone, or other masonry, filling up the interstices between its molecules with a durable substance impervious by moisture, and is unaffected by any of the influences which could injure stone.

DISTRICT SURVEYORS.

NOTICES BY BUILDERS.

Two Days' Notice. (1) Before commencing building or any work on, in, or upon, any buildings. (2) Before commencing if work has been suspended three months. (3) In the event of change of builders, before new builder enters on the continuance of work.

Notices must be in writing, stating situation, area, and height, and intended use of building or work, and the number of such buildings if more than one.

The penalty for failing to give notice, and for commencing work before the expiration of two days is £25. In cases of emergency, however, work may be commenced and notice be given within twenty-four hours after the commencement of work.

LIST OF

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2. Consisting of the Wards of Lime Street, Tower, Aldgate, Portoken, Billingsgate, and Langbourn.

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BUILDINGS.—TABLE OF FEES

DRAINAGE.

In laying drains the trenches should be examined and tested to see that the fall is regular, and the bed sufficiently solid to ensure that there shall be no subsidence of the drain in any portion of its length; if the ground be soft or running sand, a bed of concrete should first be laid to receive the pipes.

Where pipes are laid in a wet sub-soil in the neighborhood of springs, and there is a tendency for water to run along the bed of the drain, provision must be made for carrying off the water. This can be done by laying agricultural pipes on either side of the drain, or by the use of drain pipes, manufactured by Messrs. Brook, of Huddersfield, which are supported by a semi-circular pipe with open joints underneath as a conduit for the sub-soil water. The sub-soil water can at suitable points be turned into the drain for the purpose of flushing.

Where a building line is to be erected on soil which holds water, the site should be drained by the use of agricultural pipes, being discharged into open gullies or drains leading into the main drain.

Cut iron drain pipes are being used for the drainage of buildings, by the North British Plumbing Co., and others. Their advantages are, the long lengths of pipes, and consequent fewness of joints, and greater rigidity of the drains. The pipes can be cleaned by the flow process inside and out, to protect them from corrosion.

Testing Drains.—The following are methods of testing drains To stop the lower end of the drain and fill with water to see whether the water soaks away or is retained. To pour down a drain half an ounce or so of oil of turpentine followed immediately by six gallons of hot water. Vertical pipes can be tested by burning some odorous material at the lower end. When drains to be tested pass through a house, care should be taken to close tightly all doors, windows, and other openings.

Pipes half full with a velocity of 8 feet per second would have the following falls: 4 inch pipes, 1 in 100; 6 inch, 1 in 180; 8 inch, 1 in 235; 10 inch, 1 in 300; 15 inch, 1 in 350; 18 inch, 1 in 450; 24 inch, 1 in 600; 30 inch, 1 in 900; and with a velocity of 2 feet per second 4 inch pipes would have a fall of 1 in 300, 6 inch, 1 in 300; 8 inch, 1 in 450; 10 inch, 1 in 600; 15 inch, 1 in 700; 18 inch, 1 in 900; 24 inch, 1 in 1,800; 30 inch, 1 in 2,400.

(See also "Sanitary Appliances.")

ELECTRIC LIGHTING.

The advantages of the electric light may be summed up in a few words by saying it is healthier than any other form of light because it does not vitiate the atmosphere. It is steadier as there is no flickering, and therefore does not tire the eyes; it is cooler, as it only produces one twentieth the heat of gas, and in one twenty-eight the heat of wax candles; it is safer, as no matches are required to light it, and inflammable things cannot be set alight by it; it is brighter, so it can be fixed in any position, and therefore lends itself readily to artistic decoration; and when made on a large scale it is said it can be made cheaper than gas. It is, however, to be added, that the last claim has not, up to the present, been verified. Those companies who are now supplying electricity by lighting chandeliers at a higher rate than gas, but it may be partly owing to the fact that those using it are always willing to pay considerably more for it than its rival.

Messrs. Compton & Co. publish various books, pamphlets, &c., on electric lighting (most of which are issued free to Architects, Engineers, and Builders), giving particulars of cost, &c., regarding electric lighting. The following is taken from a paper by Mr. R. B. Compton read before the Society of Arts.

"The plant for producing the electric light may be divided into generating and distributing apparatus. In a detached installation the whole system of engine and dynamo generating the electricity, with the conductors distributing it to the lamps, is self-contained, generally within one building. At any rate, the system of conductors which connect the generating station with the lamps, does not extend beyond the property of the consumer; but in the case of central station lighting, the electricity is generated at a station placed more or less centrally to the area to be supplied, and from thence the conductors are taken through the streets to be utilized. It is the difficulty of dealing with a system of conducting mains passing through the public streets which has so long retarded the investment of capital in systems of supply from central stations.

"The various modes of laying the conductors may be divided

into two classes—(1) By insulated cables, with the appearance of which all are familiar, laid either in troughs, drawn into pipes, or into bitumen cases; or (2) by bare copper conductors stretched on earthenware or glass insulators in culverts or small subways, forming just beneath the surface of the footway. One or other of the first methods is most commonly employed. But during the last year there has been laid at Kensington considerable lengths of bare copper conductor in culverts as above described with most satisfactory results. The completed conductor consists of such durable materials, and the facilities for repairs and renewals, and for exchanging or increasing the size of the conductor itself, are so great, that it is particularly suited for electric lighting at its present stage, when we are very uncertain as to the number of houses that each conductor will have to supply during the next few years.

This is very different from that of the gas companies, who lay down their mains with the full knowledge that every house fronted by the mains will have to take the gas to a larger or smaller extent. Electric light engineers, on the contrary, having to compete with the existing supply, in most cases do not know what proportion of the houses will take the current. It is a great point, therefore, to be able to lay down a small conductor in the first instance, and to increase it by adding copper at a later date; in fact, any system of electric lighting must fulfil this requirement. If it were not for the many transverse pipes above mentioned, the culvert system described would best fulfil all the requirements; but unless these pipes can be all got below the surface, or grouped in a culvert, and the street surface at intervals is massed of solid bitumen, it would not be safe to use the bare copper conductors, for when these stretch they might come in contact with the pipes, and so make an earth connection. For such pipes a compromise must be effected, by using short lengths of insulated cable drawn into pipes or bitumen cases. Matters must be so arranged, however, that cables can be altered, repaired, or renewed, without again raising up the surface up to the surface, and this must be done by having surface boxes with removable covers. It is calculated that in London not less than 20 yards of main conductor will be required to be laid for every house supplied; that is to say, for 1,000 houses, 20,000 yards of conductors will be required, and as the cost of taking up and replacing the surface of an asphalted pavement is about 1s. a yard, this item alone comes to more than £5 of capital charge for every house supplied. A great point would be gained if it were rendered obligatory on the gas and water companies to place their service pipes at a greater depth below the surface than they are at present, and that could be very easily arranged. If this could be done in all cases, so that culverts measuring eight or nine inches in the clear could be provided, it would make the laying and care of our conductors comparatively plain sailing, and would save enormous sums of money to the lighting companies, and hence would react favourably on the cost of the light to the consumer.

"The importance of this matter can be seen when it is known that about half of the capital required for a central station supply system is required for the laying of the conductors.

"The generating machinery for electric lighting has already reached a high degree of perfection. Steam engines and dynamos are now made to return in the shape of electricity from 75 to 95 per cent of the mechanical energy which is put into the steam engine. Having already obtained such high efficiencies, very small advantages can be hoped for to the consumer from further improvements in either generating or distributing plant. Doubtless great improvements will be made in the manufacture of the incandescent lamps. They may be made vastly more efficient, but every man using the electric light will have to avail himself continuously of the improvements of the lamps by putting them in as fast as they come out, so there is no reason why he should put off using the light on this account."

"Cost of Production and Maintenance.—Adopting the Board of Trade standard of 8d. per unit, and estimating that the income from each house taking the light will average about £25 a year, it has been calculated that the company will cover its expenses and begin to pay dividends when the cost of the meter of house and the cost of the lamp and the cost of the whole system of taking the light exceeds 90 per cent of the whole cost of the lighting. Roughly speaking, the capital required for plant of every description may be taken as £50 to £100 each house supplied. One of the greatest advantages of the present system of central station lighting has been the wild promises that have been made by inventors of various forms of primary batteries, who are telling you every day that they will light your houses

with some form of primary battery that can be put in your cellar, and will require no attention. Many say that they intend to have nothing to do with the electric light until they can get it in some simple form of this kind, and that they feel confident that they will get it.

EXCAVATORS' MEMORANDA

Digging—27 cubic feet equal 1 load, and contain 21 strived bushels or 27 heaped bushels, 34 cubic feet equal 1 double load. The following materials weigh 1 ton, as filled into carts:—21 cubic feet of river sand, 22 cubic feet of pit sand, 22 cubic feet of Thames ballast, 23 cubic feet of coarse gravel, 24 cubic feet of clean chert, 19 cubic feet of soft clay, 10 cubic feet of marl, 20 cubic feet of chalk (in lump), 23 cubic feet of light soil, 38 cubic feet of earth (mould).

A dolbin cart will hold about $\frac{1}{2}$ yard cube. A wheelbarrow contains 1-10th yard cube. A small earth wagon will hold 14 cubic yards. A large earth wagon will hold 3 cubic yards. Night soil is removed in carts containing 45 cubic feet.

One yard cube of solid earth or gravel contains 18 heaped bushels before digging, and 27 heaped bushels when dug. 40 square yards equal 1 rod of surface digging, in country.

In common ground a good excavator will dig and throw out into a barrow, in a day of 10 hours, from 8 to 10 cubic yards, in stiff clay or firm gravel about 6 cubic yards; in hard ground from 3 to 5 cubic yards. A wheelbarrow will hold from 1-10th to 1-10th cubic yard.

Natural Slopes of earth, with horizontal line—Clay, well drained, 45 deg.; clay wet, 16 deg.; earth, 38 deg.; earth (compact), 59 deg.; gravel, 45 deg.; rubble, 45 deg.; sand, 28 deg.; dry mud, 35 deg.; shingle, 30 deg.

FIREPROOF CONSTRUCTION.

By HENRY LOVELAND, F.S.I.

This is a subject which has received great attention during the last twenty years, and many systems are now before the building public.

The objects of fireproof construction are:—To render the floors, walls, and roof of a building capable of resisting the effects of fire, and by dividing buildings into compartments to prevent fire from spreading from one compartment to another.

In public buildings, such as theatres, the structure should be fire-resisting, to give ample time for the escape of the audience by means of suitable and sufficient exits. In public buildings, landings, corridors, and staircases should be of incombustible materials, according to law in the metropolis, but beyond this the various Building Acts in force touch lightly upon fireproof construction. Thus horizontal divisions of structures not in the same compartment and having a separate entrance from without, must be fireproof, and if separate sets of chambers, tenanted by different persons, are contained in a building exceeding 8,000 square feet in area, such chambers must be divided vertically by party walls, and, horizontally, by party arches or fireproof floors.

The Romans in the time of Julius Caesar constructed floors as well as walls of a kind of concrete consisting of broken punia stone for roofs and floors, and broken tiles or lava for walls, the connecting material being a mixture of lime and puzolana.

It was nearly the end of the last century before anything was tried as fireproof flooring, except brick arches carried by very thick walls; then came segmental brick arches supported by cast iron girders.

This method of construction caused many serious accidents, as the girders gave way during a fire, and the entire structure collapsed.

In the seventeenth century, roads, covered with a thick layer of coarse gypsum, had been used in Nottinghamshire, and before the Royal Society in 1778 Earl Stanhope described a system of paving for rendering wooden floors fireproof.

At the commencement of the third decade of the present century joints of wrought iron were introduced, with half brick arches, and the haunches filled in with concrete. This was followed by the "Fox and Barrett" floor, which was described by Mr. Barrett in 1841 before the Institute of Civil Engineers.

Very few papers have been read on this important subject, as it is forty years since Mr. Barrett's paper was read, and

for the first time, in April, 1889, the Society of Engineers discussed the matter, after a very able paper by Mr. G. M. Lawford, A.M. I.C.E.

The late Sir Henry Hunt used an arch of tiles and cement resting on rolled joists.

Mr. Dawney's system consists either of 3 inch square iron bars, 12 inches apart, or of 5 inch joists, 16 inches apart, resting on the lower flanges of 8 inch joists in 7 feet bays 16 feet span. Flat ascending is placed below the joists, and concrete is filled in, forming a solid mass encasing the framework.

The concrete is composed of broken bricks, or other suitable aggregate, and Portland cement. Any floor can be laid on the concrete, and the underside can be plastered, the material covering the lower flange of the joist, or at least 12 inches.

The cost for a 12 feet bearing, including joints is about seven shillings per superficial yard, the weight 40 lbs. per square foot, and will carry a safe load of 2 cwt. per square foot.

This system has been extensively used during the past twenty years with uniform success, and has withstood a most severe test in a recent conflagration at a druggist's manufactory.

Dennett's system has been used in many large buildings, such as St. Thomas' Hospital, the Courts of Justice, and the House, Colonial, and Foreign Offices.

The system consists of arches made of concrete composed of broken bricks and sulphate of lime. If the spans are narrow, the arches are carried on walls; if wide upon rolled joists. The arches rise about one inch for every foot of width, and are filled in between the haunches to make a solid level floor.

The girders are completely encased in the concrete, and there is a minimum of thrust on the walls owing to the slight rise of the arches. An additional merit is that the floors are non-conductors of both sound and heat.

The sulphate of lime or gypsum used in this system causes the concrete to remain intact when exposed to white heat, while ordinary concrete loses their cohesive power under similar circumstances.

Very similar to Dennett's is that of Messrs W. B. Wilkin son. The concrete is composed of bricks, coke breeze, and Portland cement. For small spans no joists are required, but T-irons are inserted.

The soffits are rendered, or ceiling joists are fixed, to carry slabs of fireproof plastering $\frac{1}{2}$ inch thick.

Messrs Lindsay & Co space the iron joists from 18 in. to 30 in. apart, with trussed rods in girders, passed over and under the joists, thus bracing the joists.

The concrete comprises coke, breeze, mineral sand, and Portland cement.

The same firm invented another system of steel troughs filled with punia concrete, the soffits having fillets secured by bolts to the trough, or concrete slab.

The floors have been used in some large buildings, such as the Federal Assurance Company's Office, and the National Liberal Club.

Messrs. Bonneau, Drew, & Co. prefer to use rolled iron joists, spaced from 18 inches to 2 feet apart, supporting flat concrete not less than 6 inches thick, the depth of the joists of course varying with the span and the load to be carried.

Another kind of floor is the Doublet-Peto, which is composed of springs or skewbacks, fitting on to the lower flange of the joists; a complete arch with a keyhole, all of terra cotta, forms the floor, the ceiling having dovetailed grooves for plaster. The materials of which the blocks are composed is not affected by heat or cold water, and if used for narrow spans forms a very effective floor.

The well-known improved fireproof floor of Messrs. Homan and Rogers is a modification of the French, or flat brick floor.

The rolled joists are placed one foot six inches apart, and specially moulded perforated flat burnt blocks are laid between. These blocks have a moulded projection, protecting the flange of the joist, so that no part of the iron is exposed to the action of fire, and no discolouration of the ceiling can possibly take place. The blocks are formed with wedge joints throughout, so that when the concrete is filled in, a compact and solid floor is formed. This construction, unlike arched constructions, generally, gives no thrust, and the walls stand securely together. The cost within the London district is from seven shillings per yard square for the iron joists, brick and concrete, fixed upon special inventions is that of Mr. Mark Fawcett, formerly an architect. The rolled joists are placed 2 feet apart, with semi-circular tables of fireproof $\frac{1}{2}$ inches

diameter, and 1 1/2 in. thick, called by the inventor tubular joints, which rest on the lower flanges of the rolled joists.

The whole is covered over with heavy concrete, the flat side of the tube forming an excellent key for the plaster coating. This system has been applied to several buildings. The weight is about 40 lb. per square foot.

Masons, Excavators and Builders, in their system, rely entirely upon round solid joints laid close together and well spiked. The depth of the joints being 4 1/2 inches for 6 feet, and 11 inches for 30 feet, no plaster being required.

Many systems of frontage construction are in use in France, and Mr. Galle, in a paper at the Royal Institute of British Architects, stated that in America he found that rolled joists were used with hollow arch blocks of burnt clay resembling terra-cotta or firebrick.

Prepared Facing Blocks for Floors and Walls (Wright's Patents).—These are indestructible blocks of a specially made concrete patented by Mr. George A. Wright, in 1881. They are very hard and tough, and do not split up; moreover, they never get too hard to be used although the certified crushing weight is 1,188 lbs. to 1 1/2 in. cube. The real holding properties of Wright's Blocks are excellent and well known.

When used in basement or fireproof floors the blocks are bedded level, and anything fixed thereto becomes absolutely immovable. An air space under floor boards may be easily obtained, if desired. Wright's Facing are of great assistance in firmly securing wood blocks or parquets in the concrete bed. Beaded soffits, floors ceilings and ornaments may be thus firmly secured. They have been used in many of the largest contracts of recent years, and also adopted by H. M. Government Departments, and are strongly recommended by the leading authorities upon fire prevention. [See advt. in this book.]

FLOORS

TABLE OF WOOD GIRDERS, LINDERS, AND JOISTS, IN BALTIMORE.

Length of spanning in feet.	GIRDERS 4 to 5 feet apart.		LINDERS 4 to 5 feet apart.		JOISTS 2 feet apart.		C. & S. 7 feet apart.	
	Depth in ins.	Breadth in ins.	Depth in ins.	Breadth in ins.	Depth in ins.	Breadth in ins.	Depth in ins.	Breadth in ins.
6	—	—	6	4	6	—	2 1/2	2 1/2
8	—	—	7	4 1/2	7	—	2 1/2	2 1/2
10	9	7	8	5	7 1/2	—	2 1/2	2 1/2
12	10	8	9	5 1/2	8	—	2 1/2	2 1/2
14	11	9	10	6	—	—	2 1/2	2 1/2
16	12	10	11	6 1/2	10 1/2	—	2 1/2	—
18	13	11	12	7	12	—	—	—
20	13	11	13	7 1/2	13	—	—	—
22	15	12	—	—	—	—	—	—
24	16	13	—	—	—	—	—	—
26	16	14	—	—	—	—	—	—

FOUNDATIONS AND SITES OF BUILDINGS

Bye Laws of the London County Council.

No house, building, or other erection, shall be erected upon any site or portion of any site which shall have been filled up or covered with any material unprepared or mixed with any fossil, animal, or vegetable matter, or which shall have been filled up or covered with dirt, or slop, or other refuse, or in or upon which any such matter or refuse shall have been deposited, unless and until such matter or refuse shall have been properly removed, by excavation or otherwise, from such site. Any holes caused by such excavations must, if not used for a basement or cellar, be filled in with hard brick or dry rubbish.

The site of every house or building shall be covered with a layer of good concrete, at least six inches thick, and smoothed

on the upper surface, unless the site thereof be gravel, sand, or natural virgin soil.

The foundations of the walls of every house or building shall be formed of a bed of good concrete, not less than nine inches thick, and projecting at least four inches on each side of the lowest course of footings of such walls. If the site be upon a natural bed of gravel, concrete will not be required.

The concrete must be composed of clean gravel, broken hard brick, properly burnt ballast, or other hard material to be approved by the District Surveyor well mixed with fresh burnt lime or cement in the proportion of one of lime to six, and one of cement to eight of the other material.

The foregoing Bye Law shall not apply to any building or other erection to be used as a stable or shed, provided that such erection shall not be used for any public entertainment or assembly of persons, or as a dwelling or sleeping place.

FRONTAGES

(Metropolis Management Act Amendment, 1862.)

General line of Street.—Buildings projecting beyond general line of street, if taken down, or demolished by fire or otherwise, to the extent of one half, may be set back by requirement of the County Council, in which case compensation shall be given to the owner.

Buildings may not be erected beyond general line of building in any street without an consent in writing of the County Council, in case such line of buildings does not exceed fifty feet from the highway.

The County Council may, in giving consent for any erection beyond the regular line of buildings in any street annex any condition to the consent.

(Metropolis Management and Building Acts Amendment, 1882.)

The County Council, in giving consent to the erection of a building or structure beyond the regular line of frontage, may annex to the consent any condition as to the amount of land in front of such building or erection which shall be given up to the public.

(Metropolis Management and Building Acts Amendment, 1878.)

Prescribed distance from centre of Road. No building may be erected, or be extended in such manner that the front wall, or if there be a forecourt, the external fence or boundary of such forecourt, shall be at a distance less than the prescribed distance from the centre of the roadway, passage, or way, within the consent in writing of the County Council.

FURNACE CHIMNEY SHAFTS.

By HENRY LOWMOORE, F.S.I.

It is somewhat remarkable that while it is possible to erect churches, schools, mansions, and acres of ordinary houses in the metropolis without referring to anybody as regards the construction of the buildings except the qualified expert known as the District Surveyor, nobody can erect a small shaft for an ordinary engine without making a special application to the County Council, or all the Acts of Parliament have passed over the furnace chimney shafts, although they are referred to in section 20, sub-section 10 of the Building Act, 1855.

It would have been easy to have given a table of heights and proper thickness of walls.

Very tall chimney shafts are not erected in the London district, the tallest in Great Britain being Tinsley's Shaft at the Es. Refractor Chemical Works, Glasgow, the total height of which is 485 feet, and Port Dundas, also in Glasgow, which is 454 feet. There are about twenty-five shafts which exceed 200 feet, but the majority are below 100 feet. The height of the large towers in the Midlands Counties Laws regulations restricting the height to 50 feet.

It is very important that chimney shafts should have a proper foundation, in all cases going down to a good hard solid earth, rock or gravel. A solid mass of concrete should then be laid, and the brickwork of the best hard well-burnt stocks may be proceeded slowly, and on no account during frosty weather.

Motor should be used, and the joints flushed up, not grouted. If the leak is likely to be great, fire bricks should be used for the internal facing.

It is better to keep shafts quite independent of other buildings.

Heavy caps are a source of danger, the projection being limited in the Metropolitan to the thickness of the brickwork at the top of the shaft.

As many stretchers as possible should be used to increase the tenacity of the shaft to resist any force tending to split it. Floor iron band is often used, and the strength of the shaft is much increased thereby, but a stackcap constructed in attractive to the electric fluid, and in this case, as indicated in every case, a good lightning conductor is a necessity.

Many tall shafts after erection have been found to have bulged, and various methods have been adopted for straightening.

REGULATIONS TO BE OBSERVED IN MAKING APPLICATIONS TO THE LONDON COUNTY COUNCIL.

Every chimney shaft for the furnace of a steam boiler, brewery, distillery, or manufactory shall be carried up throughout in brickwork and mortar, or cement of the best quality.

Every furnace chimney shaft shall be built on a bed of concrete to the satisfaction of the District Surveyor.

The base of the shaft shall be solid to the top of the footings, and the footings shall spread equally all round the base by regular offsets to a projection on both sides equal to the thickness of the wall at the base.

The width measured externally of a furnace chimney shaft at the base or at that portion immediately above the footings shall be as follows:—

If square on plan at least one-tenth of the total height of the shaft.

If octagonal on plan at least one-eleventh of the total height of the shaft.

If circular on plan at least one-twelfth of the total height of the shaft.

Every furnace chimney shaft shall have a batter of 2½ inches at least in every 10 feet of height, or 1 in 45.

The brickwork shall be at least 8½ inches in thickness at the top of the shaft, and for not exceeding 30 feet below, and shall be increased at least 4½ inches in thickness for every 30 feet of additional height measured downwards.

No portion of the walls of a furnace chimney shaft shall be constructed of fire brick, and any fire brick lining to be used must be in addition to the thickness of and independent of the brickwork.

Every cap, cornice, pedestal eaving course, or other variation from plain brickwork shall be in addition to the thickness of brickwork prescribed by the foregoing rules, and no cornice shall project more than the thickness of the brickwork at the top of the shaft.

N.B.—Two copies of the tracing on lines should be sent, and the construction must be clearly shown.

GAS FITTERS MEMORANDA.

On laying gas-pipes a slight rise should be given them throughout their whole length, because of the condensation from the gas which accumulates in them.

Siphons, with a draw-off tap, or tee pipes with stopped ends, should be placed wherever there is a depression in the pipes to remove the condensation.

Sizes of Pipes.—The following are the sizes of pipes most generally in use:—½ inch diam. for 2 lights; ¾ inch diam. for 6 lights; 1 inch diam. for 12 lights; 1½ inch diam. for 25 lights; 2 inch diam. for 50 lights; 2½ inch diam. for 70 lights; 3 inch diam. for 120 lights; and 4 inch diam. for 300 lights.

Gas pipes should not be buried in the plaster of walls but be exposed, or laid where they can be easily got at in case of leakage.

Gas jets should not be placed nearer to a ceiling than three feet, or to wood work at a distance less than three feet.

Gas light intercepted by Glasses.—Common window glass intercepts light about 10 per cent., ground glass about 25 per cent., and opti globes from 40 to 50 per cent.

Light decreases in the ratio of the square of its distance from its source.

GAS GOVERNORS

A reliable Governor is necessary to control the pressure of gas from the main, so as to obtain the greatest amount of light for the smallest consumption of gas. Gas burnt at too great a pressure is not only wasteful of the gas, but deleterious, as part only of that passing through the burners is consumed, the remainder escaping into the air to the serious damage of furniture, paintings, and decorations generally.

Dr. Andrew Wilson, F.R.S.E., F.L.S., &c., says, "A great source of health danger and air impurity combined, is found in the varying pressure at which gas enters our houses. If the pressure is great and uncontrolled, more gas is forced through the burners than can be properly and fully consumed. Waste of gas, &c., increased gas bills, together with ill health, are the results of this accident, which can be remedied by a Gas Governor."

The Gas Governor is a great sanitary promoter and health saving appliance, as well as an instrument of economy. Of the Gas Governors in the market, one of the most successful is "The Shaw," patented by Joseph Shaw, of Huddersfield, particulars of which will be found in the COMPANION CATALOGUE. This Governor is spoken of in high praise by many who have proved its value by practical use.

GLAZIERS' MEMORANDA

A crate of Crown Glass contains 12 tables of the best; 15 tables of seconds; 18 tables of third; and 18 tables of fourth. A table measures from 48 to 64 inches in diameter, and will glass 9 to 12 feet square.

Sheet Glass may be obtained of several qualities and thicknesses, from 16 to 42 oz. per foot square, and from 12 to 17 feet in area.

Patent Plate is of three qualities, and may be obtained of the following thicknesses:—1-16th, 1-12th, 1-10th, and 1-8th of an inch, and up to 50 inches long or 99 wide, and 18 feet in area.

Patented or British Plate is of two pleasing qualities and 3-16th, 1-4th, and 1-8th inches thick can be obtained up to 100 feet in area.

Rough Plate (plain or fluted) is 1-10th, 1-12th, 1-16th, and 1-8th of an inch in thickness, and can be obtained up to 100 inches long, or 33 inches wide and 33 feet in area.

Rough Plate Cast (for roofs, skylights, &c.) is made up to 60 feet in area, with a thickness of ½ to 2 of an inch, and 40 feet in area, with a thickness of 1 inch.

HABITABLE ROOMS, CELLARS, VAULTS, &c.

Rules under Metropolitan Building and Metropolitan Management Acts.

Every habitable room, except attics and cellars, must be at least 7 feet in height in every part.

Every habitable room constructed in the roof must be at the least 7 feet in height for not less than one-half the area of the room.

Cellars, underground rooms to be constructed in manner directed by the Act for the better Local Management of the Metropolitan.

Provisions as to the Occupation of underground Rooms as Dwelling.

Any room of a house the surface of the floor of which room is more than three feet below the surface of the footway of the adjoining street, and any cellar, where such room or cellar is or has been occupied separately as a dwelling, or at or before the time of the passing of this Act, may continue to be so let or occupied if it possesses the following requisites; that is to say,

If there be an area not less than three feet wide in every part from six inches below the floor of such room or cellar to the surface or level of the ground adjoining the footway of such, or external side thereof, and extending the full length of each side.

If such area, to the extent of at least five feet long and two feet six inches wide, be in front of the window of such room or cellar, and be open or covered only with open iron gratings;

If there be in every such room or cellar an open fireplace, with proper flue thereto;

If there be a window opening of at least nine superficial feet in area, which window opening must be fitted with a frame filled in with glassed sashes, of which at the least four and a half superficial feet must be made to open for ventilation;

And no such room nor any cellar not so let or occupied as aforesaid as or before the time of the passing of this Act shall be so let or occupied unless it possess the following requisites: that is to say,

Unless the same be in every part thereof at least seven feet in height, measured from the floor to the ceiling thereof;

Unless the same be at least one foot of its height above the surface of the footway of the street adjoining or nearest to the same;

Unless there be outside of and adjoining the same room or cellar, and extending along the entire frontage thereof and upwards from six inches below the level of the floor thereof up to the surface of the said footway, an open area at least three feet wide in every part;

Unless the same be effectually drained and secured against the rise of effluvia from any sewer or drain;

Unless there be apartment in such room or cellar the use of a water closet or privy and an ashpit furnished with proper doors and coverings kept and provided according to the provisions of this Act;

Unless the same have a fireplace with a proper chimney or flue,

Unless the same have an external glazed window of at least nine superficial feet in area clear of the frame, and made to open in such manner as is approved by the surveyor of the Metropolitan Board of Works.

Provided always, that in any area adjoining a room or cellar there may be placed steps necessary for access to such room or cellar, and over or across any such area there may be steps necessary for access to any building above the room or cellar to which such area adjoins, if the steps in such respective cases be so placed as not to be over or across any such external window.

HEIGHT OF BUILDINGS

(Metropolis Management Act Amendment, 1883.)

No building except a church or chapel may be erected on the side of any new street of a less width than 50 feet which shall exceed in height the distance from the external wall or front of such building to the opposite side of such street without consent in writing of the County Council. The measurement to be taken from the level of the centre of street up to the parapet or eaves of the building.

IRON AND STEEL CONSTRUCTION.

Tests for Cast Iron.—The surface of a casting should be smooth and even, the edges clean and perfect. A new fracture should present a fine-grained texture, have bright metallic lustre, and be of uniform blue-grey colour. Should be free from air bubbles, scoria, flaws, and other defects. Flaws and air bubbles at times get filled in with sand, or are purposely stepped in. These defects may be detected by a dilution of sound on the metal being struck. The edges of a casting struck with a light hammer should receive a slight impression, indicating that it is tough. If it fractures, the metal is hard and brittle. Test bars of the same metal as castings are sometimes run for the purpose of testing.

Tests for Wrought Iron. Subject it to sudden blows by a falling weight to test its toughness. To tensile strain to test its ductility, it should stretch before fracture. Soak a bar of iron for a few days in very weak nitric or sulfuric acid, which will render its fibrous structure visible, and in best iron its fibres will appear fine, straight, and lie regularly side by side; in inferior iron the fibres will be coarser and not so regular in arrangement.

Tests for Steel are the same as for wrought iron.

PRESERVATION OF IRON.

Galvanizing consists of a thin coating of zinc, applied by steeping the heated iron in chloride of zinc to act as a flux, and then dipping it into molten zinc.

Poussé d'acier process consists in coating the iron with magnetite oxide produced at a high temperature.

Before coating iron care should be taken to see that the surface is perfectly clean.

(See also "Antirust" and "Painters' Memoranda.")

COAL IRON.

Columns with ends flat and fixed are three times stronger than columns with rounded or movable ends. This ratio decreases with columns under 20 diameters to about 1½ times at 12 diameters. A column with fixed ends equals in strength a column with movable ends of half its length. A column with one end fixed and one round, or movable, is in strength a mean between columns with both ends fixed and both round. The strength of solid columns, with rounded ends, is increased about 1-7th by enlarging the diameter in the middle, but enlarging the diameter of hollow columns in the middle or at the end does not increase their strength.

Columns with flat ends, when not exceeding five diameters for cast iron, and ten diameters for wrought iron, yield wholly by crushing, and when from 5 to 10 diameters for cast iron and 10 to 20 diameters for wrought iron, yield partly by crushing and partly by bending.

For very long columns the breaking weight of wrought iron is considerably more than of cast iron of the same diameters. Columns of steel have about double the strength of those of iron.

Cast Iron Columns.

Diameter of Column in Inches	HOLLOW COLUMNS																SOLID COLUMNS														
	Length in Feet.																Length in Feet.														
	6	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60	8	10	12	14	16	18	20	25	30	35	40	45	50	55	60
1	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
2	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
3	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
4	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
5	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
6	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
7	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
8	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
9	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
11	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96	3.10	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.82	2.96
12	1.00	1.14	1.28	1.42	1.56	1.70	1.84	1.98	2.12	2.26	2.40	2.54	2.68	2.8																	

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ROWNSON, DREW & CO

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FOR STRENGTH OF GIRDERS, SEE NEXT PAGE.

CONTRACTOR'S COMPENDIUM.

H*

ROWNSON, DREW & CO.,

Rivetted Compound Girders.

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Table of Safe Distributed Loads in Tons, and decimal parts of a Ton.

(About Quarter Breaking Loads.)

SECTION.	No. of Section.	Depth.	Width.	Weight per Foot.	BEARING IN FEET.															
					10	12	14	16	18	20	22	24	26	28	30	32	34			
					Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
I	18 B	9 1/2	6	58	12'4	10'3	8'8	7'7	6'8	6'2	5'6	5'0	4'4	3'8	3'2	2'6	2'0	1'4	1'0	
	21 B	9 1/2	8	67	13'5	11'3	9'7	8'4	7'5	6'7	6'0	5'4	4'8	4'2	3'6	3'0	2'4	1'8	1'4	
	23 B	10	8	73	15'7	13'0	11'3	9'8	8'7	7'8	7'0	6'4	5'8	5'2	4'6	4'0	3'4	2'8	2'2	
	24 B	10 1/2	6	65	12'5	10'3	8'8	7'7	6'8	6'2	5'6	5'0	4'4	3'8	3'2	2'6	2'0	1'4	1'0	
	27 B	10	8	87	18'4	15'6	13'0	11'4	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	3'4	2'6	2'0	
	28 B	10 1/2	8	97	20'0	17'7	15'0	13'2	11'6	10'2	9'2	8'4	7'6	6'8	6'0	5'2	4'4	3'6	2'8	
	31 B	9	8	64	15'5	13'7	11'9	10'1	8'9	8'0	7'2	6'4	5'6	4'8	4'0	3'2	2'4	1'6	1'2	
	32 B	9 1/2	8	71	17'4	15'5	13'5	11'5	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	3'4	2'6	2'0	
	37 B	10	8	91	23'6	20'7	17'8	15'8	14'3	12'7	11'2	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	
	38 B	10 1/2	8	104	26'0	23'3	20'0	17'5	15'5	14'0	12'5	11'0	10'0	9'2	8'4	7'6	6'8	6'0	5'2	
II	43 B	10 1/2	8	87	18'4	15'6	13'0	11'4	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	3'4	2'6	2'0	
	45 B	10 1/2	8	87	18'4	15'6	13'0	11'4	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	3'4	2'6	2'0	
	46 B	10 1/2	8	87	18'4	15'6	13'0	11'4	10'0	9'0	8'2	7'4	6'6	5'8	5'0	4'2	3'4	2'6	2'0	
	49 B	11	8	66	18'0	15'7	13'4	11'7	10'4	9'4	8'5	7'8	7'2	6'6	6'0	5'4	4'8	4'2	3'6	
	50 B	11 1/2	8	72	21'5	19'9	17'3	15'4	13'9	12'7	11'6	10'6	9'6	8'6	7'6	6'6	5'6	4'6	3'6	
	51 B	12	8	93	24'4	21'4	18'0	15'8	14'2	12'8	11'6	10'6	9'6	8'6	7'6	6'6	5'6	4'6	3'6	
	52 B	12 1/2	8	104	26'0	23'3	20'0	17'5	15'5	14'0	12'5	11'0	10'0	9'2	8'4	7'6	6'8	6'0	5'2	
	53 B	13	9	90	30'3	27'3	23'7	20'8	18'4	16'4	14'6	13'0	11'6	10'4	9'4	8'4	7'4	6'4	5'4	
	55 B	13 1/2	9	98	34'0	30'4	26'3	22'3	19'9	17'8	15'8	14'0	12'4	11'0	9'8	8'8	7'8	6'8	5'8	
	56 B	14	8	115	40'2	35'5	30'8	26'1	22'3	20'1	18'3	16'8	15'2	13'8	12'4	11'0	9'6	8'2	6'8	
III	58 B	14 1/2	8	127	46'1	40'8	35'5	30'8	26'1	22'3	20'1	18'3	16'8	15'2	13'8	12'4	11'0	9'6	8'2	
	60 B	14	9	135	51'3	45'0	38'7	33'4	28'0	24'5	22'0	20'0	18'0	16'0	14'0	12'0	10'0	8'0	6'0	
	64 B	14 1/2	8	144	57'3	50'0	42'7	36'4	30'8	26'3	22'3	20'1	18'3	16'8	15'2	13'8	12'4	11'0	9'6	
	67 B	15	9	158	67'3	59'0	50'7	43'4	36'7	31'2	27'2	23'2	20'2	17'8	15'8	13'8	11'8	9'8	7'8	
	68 B	15 1/2	9	168	74'3	65'0	55'7	47'4	40'7	35'2	30'2	26'2	22'2	19'2	16'8	14'8	12'8	10'8	8'8	
	71 B	16	9	182	84'3	74'0	63'7	54'4	46'7	40'2	35'2	30'2	26'2	22'2	19'2	16'8	14'8	12'8	10'8	
	73 B	16 1/2	9	197	94'3	83'0	71'7	61'4	52'7	45'2	39'2	34'2	30'2	26'2	22'2	19'2	16'8	14'8	12'8	
	75 B	17	11	200	104'3	92'0	80'7	69'4	59'7	51'2	44'2	38'2	33'2	29'2	25'2	21'2	18'2	15'2	12'2	
	76 B	17 1/2	11	214	114'3	101'0	89'7	78'4	67'7	59'2	52'2	46'2	41'2	37'2	33'2	29'2	25'2	21'2	18'2	
	77 B	18	10	230	124'3	110'0	98'7	87'4	76'7	67'2	59'2	52'2	46'2	41'2	37'2	33'2	29'2	25'2	21'2	
IV	82 B	18 1/2	12	300	154'3	139'0	127'7	116'4	105'7	95'2	85'2	75'2	65'2	55'2	45'2	35'2	25'2	15'2	10'2	
	93 B	19 1/2	12	330	164'3	149'0	137'7	126'4	115'7	105'2	95'2	85'2	75'2	65'2	55'2	45'2	35'2	25'2	15'2	
	111 B	21	12	354	184'3	169'0	157'7	146'4	135'7	125'2	115'2	105'2	95'2	85'2	75'2	65'2	55'2	45'2	35'2	
	112 B	21 1/2	12	364	194'3	179'0	167'7	156'4	145'7	135'2	125'2	115'2	105'2	95'2	85'2	75'2	65'2	55'2	45'2	
	116 B	22	12	384	204'3	189'0	177'7	166'4	155'7	145'2	135'2	125'2	115'2	105'2	95'2	85'2	75'2	65'2	55'2	
	117 B	22 1/2	12	394	214'3	199'0	187'7	176'4	165'7	155'2	145'2	135'2	125'2	115'2	105'2	95'2	85'2	75'2	65'2	
	119 B	23	13	414	224'3	209'0	197'7	186'4	175'7	165'2	155'2	145'2	135'2	125'2	115'2	105'2	95'2	85'2	75'2	
	120 B	23 1/2	13	424	234'3	219'0	207'7	196'4	185'7	175'2	165'2	155'2	145'2	135'2	125'2	115'2	105'2	95'2	85'2	
	121 B	24	14	444	244'3	229'0	217'7	206'4	195'7	185'2	175'2	165'2	155'2	145'2	135'2	125'2	115'2	105'2	95'2	
	122 B	24 1/2	14	454	254'3	239'0	227'7	216'4	205'7	195'2	185'2	175'2	165'2	155'2	145'2	135'2	125'2	115'2	105'2	
V	123 B	25	14	464	264'3	249'0	237'7	226'4	215'7	205'2	195'2	185'2	175'2	165'2	155'2	145'2	135'2	125'2	115'2	
	124 B	25 1/2	14	474	274'3	259'0	247'7	236'4	225'7	215'2	205'2	195'2	185'2	175'2	165'2	155'2	145'2	135'2	125'2	
	125 B	26	14	484	284'3	269'0	257'7	246'4	235'7	225'2	215'2	205'2	195'2	185'2	175'2	165'2	155'2	145'2	135'2	
	126 B	26 1/2	14	494	294'3	279'0	267'7	256'4	245'7	235'2	225'2	215'2	205'2	195'2	185'2	175'2	165'2	155'2	145'2	
	127 B	27	14	504	304'3	289'0	277'7	266'4	255'7	245'2	235'2	225'2	215'2	205'2	195'2	185'2	175'2	165'2	155'2	
	128 B	27 1/2	14	514	314'3	299'0	287'7	276'4	265'7	255'2	245'2	235'2	225'2	215'2	205'2	195'2	185'2	175'2	165'2	
	129 B	28	14	524	324'3	309'0	297'7	286'4	275'7	265'2	255'2	245'2	235'2	225'2	215'2	205'2	195'2	185'2	175'2	
	130 B	28 1/2	14	534	334'3	319'0	307'7	296'4	285'7	275'2	265'2	255'2	245'2	235'2	225'2	215'2	205'2	195'2	185'2	
	131 B	29	15	544	344'3	329'0	317'7	306'4	295'7	285'2	275'2	265'2	255'2	245'2	235'2	225'2	215'2	205'2	195'2	
	132 B	29 1/2	15	554	354'3	339'0	327'7	316'4	305'7	295'2	285'2	275'2	265'2	255'2	245'2	235'2	225'2	215'2	205'2	

The strength of a Compound Girder made of two similar rolled joists superposed is practically equal to twice the strength of one of the joists composing it.

The strength of a Compound Girder made of two similar rolled joists superposed is practically equal to twice the strength of one of the joists composing it.



DAWNAY'S



SOLID CONCRETE

FIRE-PROOF FLOORS.

The SIMPLEST,
CHEAPEST,
and STRONGEST
CONSTRUCTION yet INTRODUCED.

SUITABLE FOR ALL BUILDINGS to 40 ft. Span
without Columns.

Composed only of STEEL or IRON JOISTS embedded in a HIGH-
CLASS CONCRETE, finished FLAT BOTH SIDES, forming
A SOLID BLOCK OF ONE THICKNESS,
ABSOLUTELY INDESTRUCTIBLE.

 *No Arching, Flat-Bricks, Trussed Beams, Channel Iron or Counter Ceiling required.* 

Combines the Advantages of all other systems without their Disadvantages.

SEVERAL MILLION FEET have been in use during the past Twenty years, giving perfect satisfaction.

DAWNAY'S RIVETTED GIRDERS.

TABLE OF SAFE DISTRIBUTED LOADS IN TONS, IF MADE OF IRON.
IF MADE OF STEEL, ADD ONE HALF MORE TONS.

EXAMPLE.—Box Girder, 13 in. by 16 in., 160 to 168 lbs., carries 50 Tons on 14 ft., if Iron, but 75 Tons if Steel.

SECTION.	Depth.	Width.	Weight per foot.	BEARING IN FEET.																
				8	10	12	14	16	18	20	22	24	26	28	30	32	34	36		
				Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
	9	6 1/2	51 to 55	10	13	11	9	8	7	6	5	4	3	2	1	..	..	..	..	
	9	6 1/2	57 to 74	21	17	14	12	10	9	8	7	6	5	4	3	2	1	..	..	
	9	6 1/2	81 to 87	26	22	19	16	14	12	10	9	8	7	6	5	4	3	2	1	
	9	6 1/2	90 to 96	32	26	21	18	16	14	12	10	9	8	7	6	5	4	3	2	
	12	6 1/2	57 to 65	11	17	14	12	10	9	8	7	6	5	4	3	2	1	..	..	
	12	6 1/2	76 to 86	28	23	19	16	14	12	10	9	8	7	6	5	4	3	2	1	
	12	6 1/2	83 to 93	33	26	22	19	16	14	12	10	9	8	7	6	5	4	3	2	
	12	6 1/2	96 to 100	38	30	25	21	19	17	15	13	11	10	9	8	7	6	5	4	
	12	6 1/2	105 to 108	43	35	30	25	22	19	17	15	13	11	10	9	8	7	6	5	
	12	12 1/2	154 to 162	..	61	51	43	38	34	30	27	25	22	20	18	16	14	12	11	
	7	9	90 to 93	26	22	19	16	..	..	..	..	..	..	..	..	..	..	..	..	
	9	8	93 to 98	35	28	23	20	17	15	..	..	..	..	..	..	..	..	..	..	
	10	8	82 to 84	41	30	27	15	11	12	..	..	..	..	..	..	..	..	..	..	
	10	8	89 to 92	..	27	21	20	17	14	..	..	..	..	..	..	..	..	..	..	
	10	8	105 to 109	..	35	29	25	22	20	18	16	15	14	13	12	11	10	9	8	
	11	9	115 to 120	..	43	35	30	26	23	21	19	17	16	15	14	13	12	11	10	
	12	9	122 to 125	..	46	39	33	29	26	23	21	19	17	16	15	14	13	12	11	
	13	9	80 to 92	..	35	29	25	22	20	18	16	15	14	13	12	11	10	9	8	
	13	9	114 to 121	..	46	38	34	29	26	23	21	19	18	17	16	15	14	13	12	
	13	9	124 to 128	..	50	42	36	31	28	25	23	21	20	19	18	17	16	15	14	
	10	10	110 to 116	..	..	36	31	27	24	22	20	18	17	16	15	14	13	12	11	
	13	10	134 to 138	..	..	46	40	35	31	28	25	23	21	20	19	18	17	16	15	
	15	10	117 to 125	..	..	31	48	36	31	28	25	23	21	20	19	18	17	16	15	
	15	12	138 to 140	..	..	53	46	40	36	32	29	27	25	23	21	20	19	18	17	
	17	9	110 to 113	..	..	..	40	11	10	27	25	23	21	20	19	18	17	16	15	
	17	12	144 to 147	..	..	..	51	45	40	36	33	30	28	26	24	23	22	21	20	
		10	6	72 to 70	..	..	24	20	18	15	14	..	..	..	..	..	..	..	..	..
		10	6	111 to 115	..	..	37	31	27	24	22	..	..	..	..	..	..	..	..	..
		11	6	91 to 95	..	..	30	26	23	20	18	16	15	14	13	12	11	10	9	8
		11	6	121 to 124	..	..	43	37	33	29	26	24	22	20	18	17	16	15	14	13
12		10	130 to 134	..	..	30	43	37	33	30	27	25	23	21	20	19	18	17	16	
13		9	120 to 123	..	..	48	41	36	32	29	26	24	22	20	19	18	17	16	15	
14		10	128 to 134	..	..	55	47	41	36	33	30	27	25	23	21	20	19	18	17	
16		13	140 to 152	..	..	65	55	48	43	39	35	32	30	28	26	24	22	20	19	
17		9	138 to 143	..	..	..	50	44	39	35	32	29	27	25	23	21	20	19	18	
20		12	169 to 176	..	..	..	84	73	65	59	53	49	45	42	40	37	35	32	31	
	13	16	160 to 168	..	70	59	50	44	39	35	32	29	27	25	23	21	20	19	18	
	13	16	174 to 183	..	80	66	57	50	44	40	36	33	31	29	27	25	23	21	20	
		10	12	122 to 123	..	..	46	39	34	30	27	25	23	21	20	19	18	17	16	15
		11	12	145 to 150	..	..	48	42	37	34	31	28	26	24	22	20	19	18	17	16
12		12	155 to 158	..	..	..	57	51	44	40	36	33	31	29	27	25	23	21	20	
14		18	205 to 213	..	..	102	88	78	68	61	56	51	47	44	41	38	35	32	31	
20		18	233 to 243	..	..	..	125	109	97	88	80	73	67	63	58	54	51	49	40	
		11	12	161 to 165	..	..	..	54	48	43	39	36	33	31	29	27	25	23	21	20
		12	12	180 to 184	..	..	..	66	58	53	48	44	40	36	33	31	29	27	25	23
		14	16	180 to 182	..	..	..	79	69	61	55	50	46	42	39	37	35	33	31	30
	15	16	219 to 221	..	..	..	101	88	78	70	64	59	54	50	47	44	41	39	38	
	15	16	223 to 225	..	..	..	108	96	84	75	69	64	59	54	50	47	44	41	39	
	15	16	223 to 225	..	..	..	108	96	84	75	69	64	59	54	50	47	44	41	39	
	15	16	223 to 225	..	..	..	108	96	84	75	69	64	59	54	50	47	44	41	39	
	15	16	223 to 225	..	..	..	108	96	84	75	69	64	59	54	50	47	44	41	39	
FEET.				8	10	12	14	16	18	20	22	24	26	28	30	32	34	36		

TELEGRAMS, "DAWNAY, LONDON."

CONSTRUCTIONAL STEEL AND IRON WORK

Designed, Manufactured, and Erected to Architects' Instructions by

ARCHIBALD D. DAWNAY

(Associate Member of the Institution of Civil Engineers),

"LONDON BRIDGE HOUSE,"

KING WILLIAM STREET, LONDON, E.C.

ROLLED IRON JOISTS and GIRDERS

Of all Sections and Lengths,

TEES, CHANNELS. KEPT IN STOCK. ANGLES, PLATES.

The Ironwork of 4,000 Buildings has been constructed by Mr. DAWNAY.

STEEL & IRON RIVETTED GIRDERS, COLUMNS, ROOFS, BRIDGES,
CAST COLUMNS, STANCHEONS, TANKS.

ORNAMENTAL CASTINGS, | CONSERVATORIES,
ARCHITECTURAL ELEVATIONS, | GAS HOLDERS, SCRUBBERS.

Steel Joists Rolled to Order.

GIRDER AND JOIST SECTION SHEETS ON APPLICATION.

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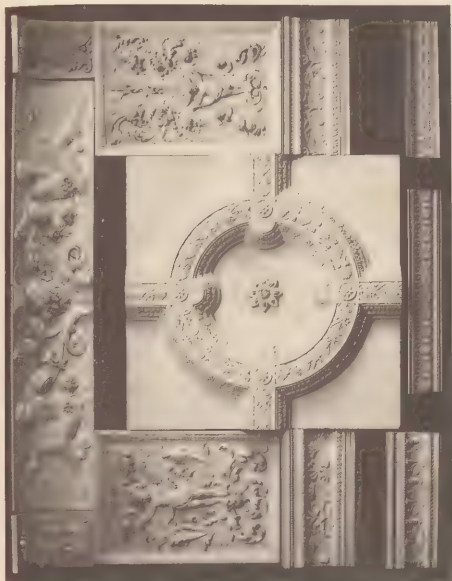
ENGLISH STEEL RIVETTED GIRDERS.

NOTE. - A saving of cost of from 10 to 15 per cent. is effected by using our Steel Girders, the sections being stronger than those of Iron in the ratio of three to two.

There is also a great advantage in being able to throw Steel Girders over long spans without the use of columns. The saving of weight in hoisting, and fixing is also another special feature in their usefulness.

TABLE OF SAFE DISTRIBUTED LOADS.

SECTION	Depth	Width	Mark	12 ft.		14 ft.		16 ft.		18 ft.		20 ft.		22 ft.		24 ft.		26 ft.		28 ft.		30 ft.		34 ft.		38 ft.		42 ft.		50	
				Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		Tons.
	8"	5 1/2"	32	12	10 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	9"	5 3/4"	33	13	11 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	10"	5 7/8"	34	14	12 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	12"	6 1/4"	37	15	13 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	14"	6 3/4"	39	16	14 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	16"	7 1/8"	40	17	15 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	18"	7 3/8"	42	18	16 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	20"	7 7/8"	43	19	17 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	22"	8 1/8"	44	20	18 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
	24"	8 3/8"	45	21	19 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
	10"	6 1/2"	46	19	18 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	12"	6 3/4"	47	20	19 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	14"	6 7/8"	48	21	20 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	16"	7 1/8"	49	22	21 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	18"	7 3/8"	50	23	22 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	20"	7 7/8"	51	24	23 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	22"	8 1/8"	52	25	24 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	1 1/2	
	24"	8 3/8"	53	26	25 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	1 1/2	
	26"	8 7/8"	54	27	26 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	1 1/2	
	28"	9 1/8"	55	28	27 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	1 1/2	
	12"	8 1/4"	56	29	28 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	2 1/2	
	14"	8 3/4"	57	30	29 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	3 1/2	
	16"	8 7/8"	58	31	30 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	4 1/2	
	18"	9 1/8"	59	32	31 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	5 1/2	
	20"	9 3/8"	60	33	32 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	6 1/2	
	22"	9 7/8"	61	34	33 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	7 1/2	
	24"	10 1/8"	62	35	34 1/2	32 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	8 1/2	
	26"	10 3/8"	63	36	35 1/2	33 1/2	32 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	9 1/2	
	28"	10 7/8"	64	37	36 1/2	34 1/2	33 1/2	32 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	10 1/2	
	30"	11 1/8"	65	38	37 1/2	35 1/2	34 1/2	33 1/2	32 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	11 1/2	
	32"	11 3/8"	66	39	38 1/2	36 1/2	35 1/2	34 1/2	33 1/2	32 1/2	31 1/2	30 1/2	29 1/2	28 1/2	27 1/2	26 1/2	25 1/2	24 1/2	23 1/2	22 1/2	21 1/2	20 1/2	19 1/2	18 1/2	17 1/2	16 1/2	15 1/2	14 1/2	13 1/2	12 1/2	



PLASTER DECORATION.

MANUFACTURED BY THE HITCHINS FIREPROOF PLASTERING COMPANY.

SLE OVAL

Hitchins' Fireproof Plastering Co.,

LIMITED.

Office: 1, GRESHAM BUILDINGS, BASINGHALL STREET, E.C.

Works: GRAYLING WORKS, MANOR ROAD, STOKE NEWINGTON.

Telegraphic Address: "PLASTERING, LONDON."

Gold Medal awarded Health Exhibition, 1884, for Fireproof and Sanitary Plastering.
Silver Medal for Fireproof and Ornamental Plastering awarded by Society of Architects, 1886 and 1887
Bronze Medal for General Excellence in Plastering, awarded Brussels Exhibition, 1888.
"Architect and Builder" Exhibition, Agricultural Hall, 1890. The only Gold Medal awarded.

THE Directors beg particularly to call the attention of Architects, Builders, and Decorators to their Sheet of Designs for Fibrous Plastering, see p. 462, they having a L.I.C. in a Branch to their well-known system of Fireproof and Sanitary Plastering, and are prepared to tender for the same to any extent (references given to leading Architects for whom work has already been executed).

The Company's system of Fireproof Plastering for Ceilings, Walls, and Casings for Iron work has been recognised by the Metropolitan Board of Works and the Committee of the United Fire Insurance Companies as being thoroughly adapted for the purposes for which it is intended, and it has also been adopted by the Admiralty, War Department, and School Board for London, for use at New Stores, Devonport Dockyard, Barracks at Hounslow, and various School Buildings, in addition to its use at many of the largest business establishments in London and elsewhere with thorough success.

By a system the Company have adopted of backing their Slabs, they are rendered specially adapted for preventing the annoyance caused from damp walls.

They have also secured the sole right of supplying Fibrous Wood Pulp, consisting of Cornices and Centre Flowers of approved Stock Designs, being specially suitable on account of its extreme lightness and the readiness with which it is fixed for mansions already finished, but requiring extra ornamentation in certain rooms. The Company are prepared to supply this material to any amount.

Work in Carton Plene executed from Stock or Architects' Designs.

Over 80,000 yards super supplied, fixed, and finished by the Company during the past year.

For list of few of the works see below:

Amongst the Public Buildings recently erected, the following may be mentioned—

THE NEW STOCK EXCHANGE.—(From the designs and under the superintendence of J. J. Cole, Esq.) The whole of the Ceilings of which, including the fine Dome and Transoms, are in the Company's material and executed by them.

THE HOTEL METROPOLE.—The whole of the wood work of the Kitchen, Roof, and Lifts have been protected from the enormous heat of the large Stoves, requisite for the purposes of that Establishment (by direction of the Fire Insurance Authorities).

ALSO THE FOLLOWING

Essex Hall, Essex Street, Strand Barrett & Co., New Factory, Vauxhall W. Whitley's, Westbourne Grove and Queen's Road (over 20,000 yards super)	Chalfield Clarke, Esq. R. Rawlings, Esq.	Calf, Crown Street, W. Wharf, Dowgate Dock Warehouses, Silber & Fleming, Wood Street, and other works Warehouses for Hitchcock, Williams, & Co. Warehouses, &c. Watts & Co., Tottenham Court Road	J. Woodward, Esq. Douglas J. Mathews, Esq. W. B. Cuthwood, Esq. Messrs. Ford & Heath. " Searle & Hayes. " Lander & Redell. " T. & W. Storey. " Karlake & Mortimer. " Horenden, Heath, & Berridge. " Belcher & Belcher. " Carritt & Mosser Williams. " Gordon & Lowther " Horner Field & Moor. C. R. Hancock, Esq. Messrs. Elworthy & Son.
Stock Exchange Cranley Mansions Hackney Town Hall Breweries, &c. Warehouses, &c. Gatti's Music Hall, Westminster Bridge Road, and other works " Bell's Head," Broad Street Connaught Mansions, Victoria Street, Westminster, and other works New Chambers, Garden Court, Temple Birth and Foreign Bible Society Crowder's Music Hall, Greenwich Grand Theatre, Islington Mansion, St. Leonards-on-Sea Warehouses, London Wall Avenue Queen's Hotel, Bathbourne	Ebenezer Saunders, Esq. J. J. Cole, Esq. W. Colbran, Esq. Thornton Green, Esq. Barrie Kinsey, Esq. C. Bell, Esq. A. J. Bolton, Esq. Benjamin Taberner, Esq. H. H. Co., Esq. J. P. & Co., Esq. J. I. Ames, Esq. F. Buckle, Esq. F. Matcham, Esq. W. H. Murray, Esq. L. Solomon, Esq. H. Cressy, Esq.	Shouldred & Co., Tottenham Court Road Stowell Park (the seat of Lord Eldon) Warehouses, Luigate Hill " Fonthill," Salisbury Mansion, West Hamstead Turkish Baths, Dalston Alexandria Hotel, St. Leonards	

PUGGING. The Company strongly recommend for use their sound and Fire resisting Pugging, which is supplied and fixed in slabs thoroughly dry, the advantage of which must be obvious to practical men. Over 100,000 feet super supplied and specified during 1886.

CORNICES AND GIRDER CASINGS. The Company keep a large stock of same in various Designs and sizes ready for immediate fixing, or can supply to order at short notice.

Slab Plastering, 15,000 yards super always in stock, thoroughly dry, at reduced prices.

Superficial Yards covered by Cement, rendering.

	3 in.	4 in.	4 in.	4 in.	1 in.
1 Bushel of Cement	32	24	24	24	24
1 do. of do. and 1 of Sand	48	32	32	32	32
1 do. of do. and 2 "	64	48	48	48	48
1 do. of do. and 3 "	80	64	64	64	64

4 inch is the usual thickness.

1 Cubic Yard of Lime, 3 yards of Sand, and 3 Bushels of Hair will cover 75 yards of Render and set on Brick, and 70 yards on Lath, or 65 yards of Plaster or Render 2 Coats and set on Brick and 70 yards on Lath.

NOTICES, APPLICATIONS, AND DEPOSIT OF PLANS, &c.

Under the provisions of the Metropolitan Building Act and the Metropolitan Management Act.

1. To Vestry or District Boards.
2. To District Surveyors (see District Surveyors).
3. Service of notices, summonses, and orders.
4. Power to enter houses, &c., to comply with notice.
5. Deposit of plans, &c.
6. Applications, &c.

1.—NOTICES TO VESTRIES OR DISTRICT BUILDING.

Seven days' notice in writing to be given before commencing to build, and before making drains to drain directly or indirectly into any sewer under jurisdiction of the vestry or board.

3. SERVICE OF NOTICES, SUMMONSES, AND ORDERS.

A notice, summons, or order may be served 1. Personally: 2. on a builder, by leaving the same, or sending it in a registered letter addressed to him at his place of address as stated by him in his notice to the District Surveyor, or by posting up such notice, summons, or order on a conspicuous part of the building or premises to which it relates; 3. or owner or occupier, by leaving the same with the occupier or some inmate of his abode, or if there is no occupier, by putting up such notice, summons, or order on a conspicuous part of the building or premises to which it relates, and it is not necessary to name the owner or occupier. If the name and residence of owner or of his agent be known, then the notice, summons, or order must be sent by post in a registered letter addressed to the residence or last known residence of such owner or agent; 4. On any District Surveyor by leaving the same at his office.

4. POWER OF OWNER TO ENTER HOUSES TO COMPLY WITH NOTICES OR ORDERS.

The owner, builder, or person on whom notice has been served may, after giving seven days' notice in writing to the occupier, and producing the notice or order, enter and do all works as are necessary. If any person refuses to grant permission, or fails to render all reasonable assistance, such person is liable to a penalty of £10 for each offence.

5. DEPOSIT OF PLANS, &c.

Plans and sections of public buildings, or the alteration thereof, or addition thereto, must be deposited with the District Surveyor at the time of giving notice.

6. APPLICATIONS TO THE LONDON COUNTY COUNCIL.

Applications must be on foolscap paper, drawings must be on tracing-paper of sufficient size to permit of approval of the Council being ascertained thereon. The scale must be drawn upon plans and not expressed in words, and the north point must be marked on block plans.

The nature of the application must be stated, the situation of the road, building, or structure, and the name of the person on whose behalf the application is made, and reference must be given to the section of the Act under which sanction is sought.

Drawings must be in duplicate. In the case of the approval of area of frontage and projections, one additional copy; if the approval of new streets, two additional copies will be required. Plans submitted for lines of frontage and projections must show to a scale of 32 feet to the inch, and must show the situation of the building in relation to others adjacent. The extent of the projection line to be figured on the plans, and the area to be laid. Existing buildings to be shown by grey tint, and ground given up by blue.

In addition to the plans, drawings will also be required in

the following cases:—For porches or porticoes, a plan and side elevation to a scale of one-eighth of an inch to the foot; for verandahs and balconies, a plan and section to a scale of one-eighth of an inch to the foot; and for awns and barge boards a section and elevation to a scale of one-quarter of an inch to the foot.

The names and addresses of the owners and occupiers of the two adjoining buildings on each side of the proposed projection must likewise be sent.

Plans of new streets must be to a scale of 88 feet to the inch, and must be accompanied by longitudinal and cross sections to a scale of 88 feet to the inch horizontal, and 11 feet to the inch vertical, showing the natural and intended surfaces of the streets, and also by a key plan of the locality. The levels are to be computed from ordnance or some other fixed datum.

The name of the proposed street must be given. The name must not be already in use.

Applications for the approval of any iron building, furnace chimney shaft, or other structure, must be accompanied by a block plan of the premises, showing the position of the building or structure, and by a plan, elevation, and section, to a scale of one eighth of an inch to the foot, together with such details as to a large scale as may be necessary to show the construction.

Application for an extension of the period for the use of a temporary building must be accompanied by a certificate from the District Surveyor as to its condition, and as to its stability for such further period as may be applied for, and also as to any repairs which may be requisite.

Persons applying for the approval of buildings, under the 54th section of the Building Act, must pay a fee of five shillings on depositing the application, and a further fee of five shillings on obtaining a notification of the order approving of the design for a building, and in no case will the work be allowed to proceed until the fee is paid.

OPEN SPACES TO DWELLING HOUSES.

(Metropolitan Building Act and Amendment Act.)

Buildings used, or intended to be used, as a dwelling house, unless all the rooms can be lighted and ventilated from a street or alley adjoining, must have in the rear or side open space exclusively belonging thereto of at least 100 square feet. New buildings begun to be erected on a site not previously occupied in whole or in part by a building intended to be used as a dwellinghouse must have in the rear thereof, exclusively belonging thereto, an open space above the ceiling of the ground floor story of the following extent:—1. If the frontage be 15 feet and under, 150 square feet at least; 2. If the frontage exceeds 15 feet and is not more than 20 feet, 200 square feet at least; 3. If the frontage exceeds 20 feet and is not more than 30 feet, 300 square feet at least; 4. If the frontage exceeds 30 feet, 400 square feet at least.

PAINTERS' MEMORANDA.

The surface to be painted must be prepared by killing knots in woodwork, stopping holes, making good defects, and rubbing down irregularities.

The following materials are mostly used in paints:—

—**Base**—White lead, red lead, zinc white, oxide of iron. **Pigments**—Oils, spirits of turpentine. **Solvents**—Spirits of turpentine. **Drugs**—Litharge, acetate of lead, sulphate of zinc, and bismuth of manganese, red lead, &c. **Colouring Pigments**—Cochine, lampblack, amber, sienna, and metallic salts.

For **Priming**—White lead sometimes mixed with chalk, diluted with linseed oil. **Knottling**—Red lead and oil. **Putty**—Spanish whiting and linseed oil, well beaten, and kneaded into a stiff paste.

One Pound of knottling is allowed for 100 yards of painting on woodwork; one pound of putty for 30 yards of stopping, one pound of paint for four yards super first coat, and six yards super each additional coat.

For **Painting Iron** the best paints are those formed of some of the oxides of iron.

For **Restoring Paint** from Iron, 2 lbs. of washing soda, mixed with 1 bushel of quinine, to the consistency of thick cream, spread on and kept moist for one hour.

Sterebay Iron Paint—The chief feature of this material is as an anti-corrosive paint for application to iron under all circumstances, but its numerous qualities give it great value for use upon all materials indoors or outdoors.

INFORMATION, TABLES, ETC.

PARSONAGE HOUSES

RULES AND INSTRUCTIONS OF THE ECCLESIASTICAL COMMISSIONERS FOR ENGLAND.

(Office—No. 10, WHITEHALL PLACE, LONDON, S.W.)

NOTE.—Should the approval of the plans by the GOVERNMENT OF QUEEN ANNE'S HOUSE be necessary, the proceedings will be much facilitated if the approval of the Ecclesiastical Commissioners for England be first obtained.

THE Ecclesiastical Commissioners for England, having regard, on the one hand to the limited incomes of those benefices for which they assist in providing parsonage houses, and on the other to the importance of securing to every clergyman a convenient and comfortable residence, are of opinion that the following amount of accommodation, as nearly as may be, should, as a general rule, be provided, viz. :—

Two sitting rooms, not less than sixteen feet by fourteen, study about fourteen feet by twelve, kitchen, and scullery, and not fewer than five bedrooms, each bedroom having a fire place. There should also be a pantry or china-closet, larder, water-closet, wine and beer cellar, coal-house, dustbin, &c.

The law of dilapidations affecting ecclesiastical houses of residence renders it essential that particular attention should be paid to stability, and with a view to economy and the avoidance of dilapidation risks, the Commissioners strongly recommend that ornamental features should, as much as possible, be avoided.

Houses to be built

The following Plans, Specification, and Estimate must, in every case, be sent for the approval of the Commissioners, viz. :—

1. A block plan of the site, with the points of the compass marked showing the position of the house, and the direction of the drains, &c., together with sections indicating the slope of the ground (if any), and a description of the substratum on which the house is to be built, whether loam, sand, clay, chalk, rock, or otherwise.
2. A plan of each floor, including basement and attic (if any).
3. A plan of the roof.
4. An elevation of each front.
5. Two sections, at the least.

All the above to be drawn to a scale of one eighth of an inch to a foot.

The spaces of the rooms, the openings, the footings to the foundations, the walls, and the scantling of all timbers, to be accurately shown and figured.

The specification to contain full details, and to have a marginal reference opposite the description of each important part of the building in the several branches of trade, thus :—

Footings, Walls, Stone dressings, &c.	Pointings, Damp-proof course, Flues, &c.	Hearths, Floors, Roofs, &c.	Skirtings, Doors, Windows, &c.
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and to include drainage, well, tanks, cisterns, pumps, pipes, and everything necessary for supplying the house with water; also stoves, grates, twenty-gallon copper, sink, kitchen dresser, fittings in pantry, wine cellar, &c.

The estimate must include the cost of all matters mentioned in the specification. All external walls to be of hard well burnt brick or stone, but without any coating of cement or rough cast; if of brick, to be not less than four-and-a-half inches, if of stone, not less than twenty inches thick, internal walls, brick, nine inches, stone rubble or random course of proportionate thickness.

In exposed positions the thickness of external walls on the weather sides must be increased according to local requirements, such walls may be built hollow, great care being taken to bond them properly especially under the wall plates, and special provision must be made for protection of window and door openings, by a weather proof course built in over each. The bonding ties in hollow walls must be impervious to damp.

Battening may be used, when the nature of the materials of which walls are built requires it, for avoidance of internal dampness; but it is worse than useless when applied to walls not first made water-proof.

In all walls, external and internal, a course of slate laid in cement asphalt or some other impervious material, must be inserted above the ground line through their entire thickness, to prevent the damp rising. Gratings to be provided for ventilation under floors, to be so placed as to ensure a perfect current of air below the joists.

Stone or brick to be used for all chimney stacks coping external corners, ornaments, &c. and five pound for all lead flashings, &c. Cement or mure for any of the above purposes will not be allowed.

Basement stairs to be of stone, slate, or suitable bricks.

All hearths to be laid on brick trimmer arches or rough stone slabs.

Dressers to be constructed with glazed stoneware paper, with socket joints not less than six inches in diameter for foul drainage, or four inches for rain-water and, to be carefully trapped where necessary. Overflow drains from rain-water tanks must not be connected with any sewage.

No main partitions to be constructed of wood either in the basement or ground floor.

Baltic wood or oak to be used in the roof, joists, and partitions, and all other constructive parts of the house, also for all external joisters' work and floors.

The eills of all wood window frames to be of oak.

No joints or rafters to exceed one foot apart in the clear.

* These when approved, will be marked accordingly, and returned to the parties they may then be used as working drawings, but must be produced to the Commissioners' architect when he surveys the building.

The scantlings of joists for floors to be not less than is indicated by the following table:—

Length of bearing in Feet	Breadth of	Length of bearing in Feet	Breadth of	Length of bearing in Feet	Breadth of
	Depth in inches		Depth in inches		Depth in inches
5	5	10	8	15	10
6	6	11	8½	16	11
7	6½	12	9	17	12
8	7	13	9½	18	12½
9	7½	14	10		

When the length of bearing exceeds eight feet, the joists must be strutted by one row, and when it exceeds twelve feet by two rows of struts.

As the construction of the roof will depend upon the design of the house, no table of scantlings is given, but the timbers must be strong, and of a thickness proportionate to the foregoing table. The unsupported bearing of purlins must not exceed ten feet. Convenient means of access to the interior of roofs and to all lead gutters to be provided.

Roof coverings to be of slate stone, or tiles, all seams to be fastened with copper nails. The interior of roof coverings to be painted.

Cutters, when not of stone or slate, to be lathed with lead, the sides to be of 4 x 4 pounds, and the bottom of eight pounds to the foot superficial, at the least.

Middle roof and parapet gutters to be of seven-pound lead. Eaves gutters and rain-water pipes to be of cast iron.

Wood and iron work to have four coats of paint throughout, but if preferred internal woodwork may be varnished only or stained and varnished.

The paperhanging need not be included in the specification and contract.

Houses to be purchased.

Should it in any case appear that, from difficulties in procuring a site, or from other circumstances, it would be more desirable to purchase for a parsonage a house already built, the Commissioners will not object to the adoption of such a course, provided that a house of the kind to be purchased in other respects such as they can approve can be obtained, but, before sanctioning the appropriation to this purpose, or by notices held by them in favour of a candidate, they will require to be furnished with fully figured plans, showing the character and extent of the house, offices, and premises, and the thickness of all the walls, together with a report from a professional man, containing full particulars on the following points: viz.

- (1.) On site of house, with reference to neighbouring buildings, and whether free from nuisances, present or contingent.
- (2.) On drainage, and especially on construction and trapping of drains, and on water supply, whether by well, tank, or from other sources, quality, quantity, &c.
- (3.) On height of each story.
- (4.) On construction, material, and condition of walls, whether free from settlements, solid when struck with a hammer, dry in every part, and battened or not.
- (5.) On internal partitions, whether of timber, stone, or brick.
- (6.) On hearths, whether laid on brick or stone arches, or how otherwise.
- (7.) On construction of the roof, stating scantlings and length of bearing, description of wood used, and present state thereof.
- (8.) On covering of roof, material used, if slate, description of nails, and present condition of each part, quality of battens or laths.
- (9.) On lead gutters (if any), stating fall, depth of drips, length of sheets, how laid, and whether any means of access provided.
- (10.) On chimneys, how constructed, how lined, where placed.
- (11.) On eaves gutters, and rain-water pipes, stating material used, and present condition.
- (12.) On ceilings, whether sound or much cracked, and if the latter, from what cause.
- (13.) On boarded floors; whether they vibrate or cause the houses to shake when jumped on, whether the boards are good, and skirtings close and properly fixed.
- (14.) On doors, windows, and shutters, whether sashes are strong, frames sound, and sills of oak; shutters, whether close fitting and in good order, stating thickness, mode of fastening, and condition of fastenings.
- (15.) On paved floors, and in which rooms used, whether laid with flags, bricks, or tiles, and their present condition and whether perfectly dry.
- (16.) On office fittings, and grates, bells, &c.

Payments for Houses.

If houses to be purchased should be conveyed to the Commissioners, or should there be any special circumstances requiring it, to the Treasurer of Queen Anne's Bounty. In the latter case the Commissioners will be prepared to pay over the houses in three instalments, or in a part, if it may be necessary, to the Government, on receipt of a notification from the solicitor that before that the conveyance is ready for completion, provided that the Commissioners shall have been previously satisfied that any repairs or alterations which they may have required have been duly performed.

Previously to any payment being made towards the purchase of a parsonage house, the Commissioners will require to be satisfied that the use in part of the purchase money has been duly conveyed in instalment for the building, and they must also be informed of the precise amount of the contract or contracts for the building.

The following regulations are usually observed with regard to payments on account during the progress of the works:—

The money due by the Commissioners are as a general rule payable in four instalments.

A first instalment is payable when "the joists of the chamber floors have been laid."

A second when "the house has been roofed in, the gutters and rain-water pipes fixed, and the drainage completed;"

A third when "the plastering has been done;"

A fourth when "the house has been completed in accordance with the Plans and Specifications approved by the Board."

Each of these payments is made only upon the receipt of a certificate from the local architect, countersigned by the incumbent, which must state that "the amount of the four forms of work printed above as being due to the particular case, is to be the first, second, third, or fourth instalment, the payment of which is desired."

The fifth and final instalment is paid so soon as the house has been surveyed by the Commissioners' architect, and they have received from him a certificate that the building has been completed in accordance with the Plans and Specifications previously approved by them.

The price of each instalment is determined in reference to the amount of the contract, and of the monies held by the Commissioners.

Where the monies in the hands of the Commissioners are equivalent to or in excess of the amount of the contract, the practice of the Commissioners is to delay a moiety of the contract by two equal instalments, payable at each of the first two stages above indicated, and to divide the balance of the amount of the contract into three equal parts, which are receivable at the third, fourth, and fifth stages, subject in every case to the receipt of the requisite certificates.

Where, however, the Commissioners hold only a small sum towards the cost of a house, their practice is, if the amount shall not exceed £500 to retain the whole of it until the building has been surveyed and reported on by their architect, or if a larger sum than £500 be in their hands, to make a payment at the second or third of the stages above named, provided however, that in no case is less than £500 retained until after the completion of the house to the satisfaction of the Commissioners.

Upon the completion of a parsonage, the Commissioners, before making the final payment required, as above stated, that the building be surveyed on their behalf, and that it be certified to have been duly completed in accordance with the approved plans and specification.

With a view to avoiding the expense of a separate journey to make the survey in each case the Commissioners have made the following regulations:—

1. A regular circuit, for the purpose of such surveys, will be made by the Commissioners' architect, as soon as may be after each quarter day.

2. Incumbents, whose houses may be completed, and who may desire to have them surveyed during any particular circuit, must give notice to that effect at least one fortnight before the quarter day. In case of completion at any intervening period, notice may at any time be given so as to ensure an earlier survey in case of opportunity presenting itself.

3. Houses should be thoroughly and completely finished in every respect, except the paperhanging, before a survey is made, and such survey should not be applied for without an assurance that this will be the case.

4. The Commissioners will pay the expense of one survey, but in case the building be found to be defective to such an extent as to preclude the architect from giving the necessary certificate, and a second survey be consequently required, the cost of such second survey will be deducted from the amount of the grant. Such expense would, perhaps, rightly fall on the builder, and due warning of this should therefore be given to him by the incumbent.

NOTE.—The plans and specification approved by the Commissioners must be produced for the inspection of their architect at the time of his survey, and it is particularly requested that the incumbent will take care to have them in readiness before such survey is made.

PAVEMENT LIGHTS.

Pavement lights are now constructed in combination with encaustic and cemented tiles, by which means a great variety of ornamental designs may be had for use in entrances, corridors, landings, &c., making the floors at once illuminating and ornamental. Cellular slabs, which were generally made of wood are now constructed as pavement lights, made up of folding lights, or to slide on rollers with guttered frames. They form an indestructible illuminating and water-tight cover to cellar openings, which, though more expensive in the first cost than wooden slabs, are in the end cheaper and better in every respect.

Messrs. Hayward Brothers and Eckstein manufacture Hayward's Patent Semi-Prism Lights, which are the best for thoroughly illuminating the back portion of basements as well as the spaces immediately before them. The lights are glazed with alternate rows of semi-prism and convex lenses, the former being arranged at such an angle as to reflect the greatest possible amount of light into basement, while the latter give a good vertical or direct down light as shown in the COMPASS COMPASS. The frames in which the lenses are fitted, are equipped with small ribs or projections which afford a firm foothold.

Hayward's latest improved reflecting Bullboard Lights are usually fixed over the pavement lights when practicable, and these add considerably to the effect in basement.

Lights are also made sufficiently strong to withstand horse and cart traffic, and are glazed either with semi-prism or plane lenses according to the position in which they are to be fixed.

For Shop Floors, &c., Hayward's checkered Lens Lights give the best results; the lenses being decorated on top to diffuse the light, and at the same time have a neat and ornamental appearance. The frames of these lights are smooth on top, i.e., without the ribs or projections, which would sometimes be objectionable in a shop floor, or room.

Besides the lights mentioned, this firm manufactures every other description of pavement lights, opening Flaps, Coal-plates, &c., and all the lenses used are made of the best flint glass. Further particulars will be found in the COMPASS CATALOGUE.

ROOFS

TABLE OF SCANTLINGS OF WOOD ROOFS.

King and Queen Post Trusses, to feet span, Pitch, 27° 1

Slate Covering.

Span in feet.	Tie Beam.	Principal Rafters.		King Post.	Queen Post.	Small Queen.	Straining Beams.	Struts.
		Int.	Ins.					
20	9 x 4	4 x 4	4 x 4	..	..	..	..	4 x 2
22	9 1/2 x 4	3 x 3	5 x 3	..	..	..	..	3 1/2 x 2
24	10 1/2 x 4	3 x 4	5 x 4	..	..	..	..	4 x 2
26	11 1/2 x 4	3 1/2 x 4	5 1/2 x 4	..	..	..	..	4 1/2 x 2
28	12 1/2 x 4	4 x 4	6 x 4	..	..	..	..	4 1/2 x 2
30	13 x 4	4 x 4	6 1/2 x 4	..	..	..	..	5 x 2
32	14 x 4	5 x 4	7 x 4	..	..	..	..	6 x 2
34	15 x 4	5 x 4	7 1/2 x 4	..	..	..	..	7 x 2
36	16 x 4	6 x 4	8 x 4	..	..	..	..	7 1/2 x 2
38	17 x 4	6 1/2 x 4	8 1/2 x 4	..	..	..	..	8 x 2
40	18 x 4	7 x 4	9 x 4	..	..	..	..	8 1/2 x 2
42	19 x 4	7 1/2 x 4	9 1/2 x 4	..	..	..	..	9 x 2
44	20 x 4	8 x 4	10 x 4	..	..	..	..	9 1/2 x 2
46	21 x 4	8 1/2 x 4	10 1/2 x 4	..	..	..	..	10 x 2
48	22 x 4	9 x 4	11 x 4	..	..	..	..	10 1/2 x 2
50	23 x 4	9 1/2 x 4	11 1/2 x 4	..	..	..	..	11 x 2
52	24 x 4	10 x 4	12 x 4	..	..	..	..	11 1/2 x 2
54	25 x 4	10 1/2 x 4	12 1/2 x 4	..	..	..	..	12 x 2
56	26 x 4	11 x 4	13 x 4	..	..	..	..	12 1/2 x 2
58	27 x 4	11 1/2 x 4	13 1/2 x 4	..	..	..	..	13 x 2
60	28 x 4	12 x 4	14 x 4	..	..	..	..	13 1/2 x 2

PURLINS.

Bearing in feet	Distance apart in feet.			
	6	7	8	9
6	6 x 3 1/2	6 x 4	6 1/2 x 4	6 1/2 x 4 1/2
7	6 1/2 x 3 1/2	7 x 4	7 x 4 1/2	7 x 4 1/2
8	7 x 3 1/2	7 1/2 x 4 1/2	8 x 4 1/2	8 x 5
9	8 x 3 1/2	8 1/2 x 5	8 1/2 x 5 1/2	9 x 5 1/2
10	8 1/2 x 3 1/2	9 x 5 1/2	9 x 6	9 1/2 x 6
11	9 x 3 1/2	10 x 5 1/2	10 x 6	10 1/2 x 6
12	10 x 3 1/2	10 1/2 x 6	10 1/2 x 7	11 x 7
13	10 1/2 x 3 1/2	11 x 6 1/2	11 x 7	11 1/2 x 7
14	11 x 3 1/2	11 1/2 x 7	11 1/2 x 7 1/2	12 x 7 1/2
15	11 1/2 x 3 1/2	12 x 7 1/2	12 x 8	12 1/2 x 8

COMMON RAFTERS (12 in. apart).

4 feet bearing, 3 in. x 1 1/2 in.; 6 feet bearing, 3 1/2 in. x 2 in.; 8 feet bearing, 4 in. x 2 1/2 in.; 10 feet bearing, 3 in. x 2 1/2 in.; 12 feet bearing, 6 1/2 in. x 2 in.; 14 feet bearing, 7 1/2 in. x 2 1/2 in.

WEIGHTS ON ROOFS.

	Cwt. per Square.		Cwt. per Square.
Timber framing ..	6	Tiles ..	20 to 25
1 inch boarding ..	2 1/2	Plain Tiles ..	9
Asphalted felt ..	3	Wind (Vertical) ..	35
Zinc 14 gauge ..	1 1/2	Lead or Copper at per weight	
Corrugated Iron ..	2 to 3	per foot.	
Slates ..	8 to 10		

PITCH OF ROOFS.

	Mr. Angl.		Mr. Angl.
Copper ..	6°	Slates ..	5°
Lead and Zinc ..	6°	Tiles ..	1°
Corrugated Iron ..	6°	Thatch ..	45°
Asphalted felt ..	12°		

SANITARY MANUFACTURES.

The great strides made in the manufacture of Sanitary Appliances, especially with respect to drain pipes, gully traps, interceptors, &c., cannot be better exemplified than by reference to the supplementary catalogue of Messrs. Broad and Co. of Paddington. Two years since the idea of manufacturing these drain accessories in white enamelled ware would have been considered impracticable, but in the very complete and well-arranged catalogue before us we see interceptors, gully and waste traps of the most approved pattern, channel bends and junctions for use in inspection chambers, sinks and drinking water, cisterns all made in this most excellent ware, and priced most moderately. Messrs. Broad and Co. tell us: "The development of this particular branch of their business is due in a great measure to the impetus given to sanitary survey by the Health Exhibition, at which they experimentally exhibited such white enamelled channels, when the opinion expressed by experts was of so encouraging a character as to lead them to the determination to introduce drainage appliances of various kinds made in white enamelled ware. The channel system of drainage is now generally adopted, and experience has suggested the utility of several new designs herein illustrated. With a view of meeting the difficulties sometimes presented in the curves of subsidiary drains, Messrs. Broad and Co. have recently designed a complete set of channels designated series C; these are all made to three-quarter section, and it will be found that almost any combination of curves or junctions may be obtained by using one or other of the designs.

We direct attention to the very simple and effective manhole cover designed by Messrs. Broad and Co. A locking gear has now been added, so that this cover is peculiarly adapted for use

in public institutions, and is, in fact, largely used in some Government departments.

Amongst the sanitary goods manufactured by Messrs. Woodward & Rowley, none to be specially mentioned their series of wash-out closets. They are made in various patterns, from those of a cheap form to more elaborate designs, and can be had either with the closet and trap in one piece of earthenware or separate. These closets received the highest award at the International Health and Sanitary Exhibition in 1881.

The North British Plumbing Company, whose cast iron drain pipes are referred to under "Drainage," manufacture a patent manhole cover, locked by a powerful lever, which is a simple and at the same time a thoroughly effective air tight cover.

Durran's air-tight manhole cover consists of a cover and frame, having turned and ground bevelled faces which are brought together by a bayonet joint fastening, with rise and inclined plates. It is claimed for this cover that it is thoroughly air, gas and water-tight, without packing or jointing material.

SEPARATION AND CONNECTION OF BUILDINGS.

(Building Act, 1855.)

Separate sets of rooms tenanted by different persons, if contained in a building exceeding 3,500 square feet in area are deemed to be separate buildings, and must be divided vertically by party walls or horizontally by party arches or fireproof floors. If any building in one occupation is divided into two or more tenements, each with a separate entrance and staircase, every such tenement is deemed to be a separate building.

Warehouses or other buildings used wholly or in part for trade purposes, or manufacture, containing more than 216,000 cubic feet must be divided by party walls, and the contents of each division must not exceed the above capacity.

Only buildings in the same occupation may be united. No opening may be made in any party wall dividing buildings which, if taken together, would contain more than 216,000 cubic feet except under the following conditions: 1. Such opening shall not exceed 7 feet in width and 8 feet in height. 2. The floor, joints and head shall be formed of brick, stone or iron, and be closed by two wrought iron doors, each a quarter of an inch thick in the panel at a distance from each other of the full thickness of the wall. 3. Such opening to be stopped up with brick or stone when the buildings are no longer in one occupation.

(Building Act Amendment, 1860.)

Buildings used for the manufacture of machinery and boilers of steam vessels beyond the distance of three miles from St Paul's Cathedral, are not subject to the above limitations provided they consist of one floor only, and are constructed of brick, stone, iron or other noncombustible material. If of greater contents than 216,000 cubic feet, the approval of the London County Council must be obtained.

SLATES

Table of Slates, giving their average Sizes and Weights.

Name of Slate.	Size.	Course.	No. of No. required to cover by course a Square.	Est. Weight per Thousand (lbs.)
Doublers ..	12 x 8	4 1/2	2 1/2	410
..	13 x 6	5	2 1/2	480
Ladies ..	14 x 12 1/2	5	2 1/2	310
..	16 x 8	5 1/2	4 1/2	260
Vicarshead ..	17 x 10	7 1/2	6	200
Countesses ..	20 x 10	8 1/2	7	175
Marchbushes ..	22 x 12	9 1/2	8 1/2	150
Duchesses ..	24 x 12	10 1/2	10	125
Covered by Weight.				
Imperial ..	30 x 24	13 1/2	2 1/2	45
..	30 x 24	14	2 1/2	46
Quarries ..	30 x 24	16 1/2	2 1/2	40

Slating should never be laid with less than 2 1/2 inch lap.

SPECIFIC PERFORMANCE.

By H. G. DALRYMPLE, Solicitor.

Definition.	11. One property to another.
I. Jurisdiction.	12. Prejudice to third parties.
Generally.	13. Lapse of Time.
Extent of.	14. Plaintiff has not clean hands.
II. In what cases Specific Performance will not be granted.	15. Great hardship.
1. Where the Common Law remedy adequate.	16. Defective Title.
2. Where contract such as Court cannot perform.	III. In what cases the Court will grant Specific Performance.
3. Where actual performance would be useless.	1. General rule.
4. When Court cannot enforce its own decrees.	2. Chancery.
5. Where contract is voluntary.	3. Contracts relating to land—
6. When Plaintiff has elected another remedy.	(a) Generally.
7. Want of Mutuality.	(b) Unwritten contracts.
8. Incomplete contract.	(c) Written contracts.
9. Misrepresentation or Fraud.	(d) Written contracts.
10. Mistake.	IV. Procedure.

SPECIFIC PERFORMANCE.

Definition. "Specific Performance" is the short name given to that branch of the law which has relation to the actual execution of contracts according to their stipulations and terms, instead of awarding damages or compensation for their non-execution.

I. JURISDICTION.

Generally. For five hundred years prior to 1873, the two great divisions of law and procedure, which controlled, defined, and enforced civil rights in England were known as the Common Law and Equity.

The Common Law had at the beginning such almost unlimited jurisdiction about it, that it gave occasion for some of the old judges to exercise their talents in devising methods of evading its severities, and afterwards of providing remedies for wrongs which the Common Law could not deal with at all, or attempt with only in a very unsatisfactory manner. These attempts were timid and inefficient at the first, but they gradually and sure grew bolder and more enlightened until ultimately the Court of Equity (known to the general public as the Court of Chancery) obtained so firm a footing in English jurisprudence as to become an almost paramount and independent jurisdiction. "It adopted maxims from Roman Law and the Common Law of England so far as they accorded with the strict claims of justice, but rejected them when they interfered with those claims;" and by means of its own rules of procedure it was able to mitigate the severity of the Common Law, and in many instances became an acceptable medium of obtaining redress which could not be obtained in the older Courts. As the Courts grew, and time passed on, it became possessed of exclusive jurisdiction in many matters, as well as in others of a jurisdiction concurrent with that of the Common Law.

This separate and independent existence of the two great branches of law and procedure in England continued until 1873 in which year the Judicature Act was passed, by which law and equity were to become "fused."

One of the matters in respect of which the Court of Equity had exclusive jurisdiction was that of compelling parties to specifically perform, or execute, a contract into which they had entered, or the specific delivery up of articles of great value or rarity, without giving the defaulter the option of getting rid of his liability by paying damages.

The Common Law allowed the defaulter to pay damages, or to complete the contract, or give up the thing in dispute, at his option, without having the power to do more than compel him to pay damages. Equity, on the other hand, could compel the completion of the contract, or delivery of the article itself. By the Judicature Act of 1873, the Common Law and Equity

Courts were fused into one High Court of Justice, but the old distinctions are kept alive by having separate divisions—the Queen's Bench Division, representing the old Common Law Courts, and the other, the Chancery Division, representing the old Court of Chancery, and certain classes of business, including specific performance, are relegated to the Chancery Division exclusively.

An earlier attempt was made to "fuse law and equity" by the County Court Act of 1846, by which jurisdiction in equity matters was conferred on the County Courts up to £400, and this was followed in 1867 by giving to the County Courts jurisdiction in specific performance of contracts for the sale, purchase, or lease of any property up to the same amount. County Courts have since this equitable jurisdiction continued to them by virtue of the County Courts Act, 1888.

Extent of the Jurisdiction. This is two-fold. As to amount or value, it is limited to £500 in the County Courts, but in the High Court it is unlimited; while as to the classes of cases in which both Courts will exercise their jurisdiction, they are limited by certain well defined rules, so that "the discretion exercised is judicial, not arbitrary." And the result of performance in certain classes of cases, but it will in certain other classes. The success or otherwise of every case for specific performance depends upon its being brought within one or other of the classes referred to.

II. CASES IN WHICH THE COURT WILL NOT GRANT SPECIFIC PERFORMANCE.

1. **When the Common Law remedy is adequate.** Contracts for the sale and delivery of goods, chattels, and Government stocks, and choses in action, are not specifically enforceable, as being a sufficient remedy. There are plenty of other things of the same kind in the market which can readily be bought or sold, so that the actual loss occasioned by the breach of this particular contract is easily ascertainable, and the good by damages. The same rule applies, however, to this general rule, for which see "Chattel," under next Section.

2. **When the Contract is such that the Court cannot perform.** As, for example, the sale of a goodwill of a business without the premises. The Court cannot give specific directions as to what is to be done to transfer it. If the contract be for sale of certain premises, and the goodwill attached thereto, it will enforce the contract. But there is a case in the books which shows the Court will not do this where the business is peculiarly of a personal character, as non-dispensing medical practice.

3. **When the actual performance would be useless.** As a contract for a partnership which does not provide for its duration. This cannot be enforced, for as such a partnership can be dissolved at the will of either party, it would be useless for the Court to order a specific performance of that which could be undone the next minute.

4. **When the Court would be unable to enforce its own Judgment.** (1) **Apprenticeship.** "The Court cannot compel an apprentice to work, nor can it compel the master to indemnify him, nor does it therefore compel parties to enter into an apprenticeship deed."

(2) **To build.** Nor will it compel performance of a contract to build. If one man will not do the work, another will. The Court is unable to enforce the Judgment in this case.

But if a contract be to take a lease of land, and build a house upon it, the Court will enforce the taking of the lease, but not as to the building.

(3) **Hire and service.** Contracts for hire and service are not enforceable, but sometimes the Court may indirectly enforce such a contract, as where it contains a negative covenant. Thus, a lady engaged herself to a theatrical manager to sing at his theatre, and not to sing elsewhere. The Court could not compel her to sing at his theatre, and therefore on this point refused specific performance, but it could compel performance as regards not singing elsewhere, and granted a decree accordingly restraining her from doing so.

5. **Where the Contract is voluntary.** The Court will not enforce a contract which is voluntary. Thus, where a man promises without any consideration to give to another property, shares, or other property, the Court will not enforce the promise. Nor will it give effect to the promise of a man to leave all his property to his wife. The Court will only enforce the execution of contracts which are binding upon the parties; voluntary contracts are not binding.

6. **When the Plaintiff has elected to proceed in some way other than for specific performance.** This needs no illustration. It is evident that if a plaintiff has two courses open to him, one

for specific performance, and the other for damages, and be decided in this latter, the Court will not decree performance after his decision. He cannot have the thing itself and damages also.

7. *Want of Mutuality.* This means that if one party to the contract cannot be compelled to specifically perform it, the Court will not compel the other to do so. Thus, a contract made with an infant will not be ordered to be performed by the adult party at the instance of the infant on the ground that as the Court cannot compel the infant to perform, there is no reciprocity, and therefore the infant cannot have specific performance against the other party.

8. *General Contracts.* These the Court will never enforce, nor give damages for breach of them.

9. *Misrepresentation—Fraud.* The Court will not enforce a contract which has been entered into by the misrepresentation or fraud of the plaintiff.

10. *Mistake.* Nor will it enforce a contract if it be satisfied that a mistake has been made. If the mistake be the plaintiff's, he will lose his action and have to pay costs. If it be the defendant's mistake, the Court will not enforce the contract against him, but will leave the plaintiff to sue him for damages. But then the mistake must be a pure mistake, and not such a mistake as borders on misrepresentation.

There is a case in the books of a mistake having been made by a person in an auction-room buying a property which he did not intend to buy, owing to his mistaking the time then put up for sale. He refused to complete, and a suit was brought against him for specific performance. The Court, however, refused to make a decree, saying that the defendant did not intend to buy the property, but as the mistake was his he must be left to his legal liability to damages.

11. *One Property for another.* The Court will not compel a man to take a conveyance of freehold, leased or copyhold, which he had bought; nor an under-lease for an original lease.

12. *Preludes to Third Parties.* A partial performance of a contract will not be enforced which is prejudicial or unreasonable to third parties who are interested in the property.

13. *Lapse of Time.* Nor where there has been no great a lapse of time as to amount to laches.

14. *Plaintiff to "Clean Hands."* Nor where a plaintiff who seeks to compel specific performance has been guilty of unbecomingly unscrupulous conduct in the contract or fraud.

15. *Overt Hardship.* Nor where the contract would work a great hardship. The plaintiff can only recover damages.

16. *Different Title.* Nor where the plaintiff's title is bad, and the purchaser is resisting specific performance on that ground.

III. IN WHAT CASES SPECIFIC PERFORMANCE WILL BE GRANTED.

1. *General Rule.* The rule which applies in these cases is that originally there was no common law remedy, or that that remedy is inadequate. There are some cases, however, where the Court will decree performance without regard to the question whether the common law could, or could not, give adequate relief.

The following are illustrations of the extent to which the Court will go, and the nature of the cases in which it will order contracts to be specifically performed.

2. *Of Contracts relating to Chattels.* As before stated, the general rule is that the Court will not order performance of a contract for the sale of goods, chattels, shares in action, or Government stock, but there are exceptions to this rule.

(a) Unique articles of great beauty or rarity, such as the "peony horn," hickories, a picture by a well-known painter. Such articles as these the Court will order to be delivered over, and will not award any damages, for damages would not be an adequate remedy. As was once said by a learned judge: "The 'Peony horn,' the letters of the will of Somerset were things of such a character as a jury might (possibly) estimate by their weight, and the Court would obviously be a very inadequate and unsatisfactory measure of damages. In all cases, therefore, where the object of the suit is not open to compensation by damages, it would be strange if the Court in this country did not afford any remedy; and great would be the injustice if an individual cannot have his property without being liable to the estimate of people who cannot value it as he does."

(b) Chattels of peculiar importance to the purchaser in his business. As, e.g., a large quantity of timber purchased by a ship-merchant for a particular vessel, or for the building of a ship then in hand, which was valuable by reason of its vicinity. And also a ship. Both would be of peculiar importance to the purchaser, and adequate compensation in money could not be given.

(c) Shares in a railway company. A contract for sale of these would be enforced, for railway shares are limited in number, and not always to be bought, as distinguished from Consols or Bonded Annuities, which, so far as the investing public are concerned, are unlimited in amount and always to be had. Beside which a certain quantity of Government stock cannot be cancelled, but shares in a company can, and are so distinguished by their numbers, and are always transferred by their numbers.

(d) Debts. A chose in action is a right to recover money, or other thing, and in former years could not be assigned. It can now, however, be assigned, and the assignee, after having given notice of the assignment, can sue in his own name. But, generally speaking, contracts for the assignment of choses in action will not be enforced. There appears, however, to be an exception to this in the case of an assignment of debts proved in bankruptcy. In such a case the contract is for the assignment of dividends of an uncertain value. The Court will decree specific performance, "because damages at law cannot accurately represent the value of the future dividends, and to compel the purchaser to take such damages would be to compel him to sell those dividends at a very colonial price."

(e) There are other cases where the Court will order specific delivery of goods without regard to the question of damages. There are cases where a fiduciary relationship exists between the parties, as where stock, chattels, or cargoes have been entrusted to an agent, trustee, or a lender. Here, if either of these persons intended to abuse his power, the Court will stop in, stop a sale, and order re-delivery of the things in question.

3. *Of Contracts relating to Land.* (a) Generally. The greater number of cases of specific performance have been made, and do will arise, out of contracts for the sale and purchase, or the granting of leases of lands and houses. And the beneficial influence of equity has been frequently manifested in such cases.

In the case of goods, or stock, a purchaser, who cannot get delivery of the actual articles bought by him, may go into the market and buy others of the same kind. The damage he may suffer is in the having to pay an increased price, which he may recover against the defaulter. But the case of land and houses stands on a totally different footing, and very different considerations apply. A coach may be obtained of Mr. Black quite as good in all respects as one made by Mr. White; but if A. agrees to sell a specific house, or piece of land, to B., and then fail to carry out his contract, B. cannot get another house or another piece of land to answer his purpose, and damages in such a case would not be an adequate remedy. The position, therefore, soil, and surroundings of the house, or land, may give it a special value to one man (which it would not give to another), and to which might be added some special feature which could not be given by a house or a piece of land at another place, or even "round the corner." These considerations, one place, or even "round the corner." These considerations, one office to show that a money compensation is not an adequate remedy for the breach of contract, and therefore the Court will always (within the rules) decree specific performance of the contract.

(b) Unwritten contracts. The Statute of Frauds (an Act passed in the time of Charles the Second) provides that no action should be maintained on an agreement relating to lands unless it be in writing, and signed by the party to be charged therewith.

This enactment, which remains in force to the present day, would have worked incalculable mischief but for the interference of the Courts of Equity. As, for example: A. agrees, verbally, to sell certain land to B., and lets him into possession, B. spends money upon the property to make it suitable for his own requirements, and A. afterwards refuses to convey, and, indeed, threatens to treat him as a trespasser. Now apply the Statute, which says that no action shall be maintained upon a contract relating to land, unless it be in writing, and signed by the party to be charged. If that were the only law applicable to the case, B. would be distinctly defrauded, and his law would facilitate A.'s fraud and protect him while carrying it out.

The much-abused Court of Chancery, however, exercised its power in such cases as this, and not only prevented A. from completing his fraud, but compelled him to perform his contract by conveying the land to B.

Such a case as this comes under the head of performance, and the rule of equity is to grant specific performance of an unwritten contract which has been partly performed by the party seeking it, and

Part Performance. What, then, is part performance? It is the doing of certain acts in part fulfilment of the essence of the contract; such acts as are clearly founded upon the contract, and upon no other ground whatever.

If the acts done can be referred to any other cause, or are done with any other intention, they do not constitute part performance. Thus, the mere possession of the land will not be deemed part performance if possession is independent of the contract, as in the case of a tenant with, while in possession as such, contracts verbally for the purchase of property: he will not be allowed to set up his possession as part performance, for his possession arose from his character of tenant, and not of purchaser. But if the possession be delivered after the contract, and in pursuance of it, it will be part performance, on which the Court can act.

Introductory matters are not part performance, as delivering an abstract, viewing the estate, registering deeds, appointing a value to value stock, and other like acts. These are considered by the Court as introductory matters only, not part performance. The expenses incurred by the acts are sufficiently compensated for by damages. Payment of a part, or of the whole, of the purchase money, is not part performance. The reason for this is that while the Statute expressly provides that payment shall be part performance in the case of goods, it is altogether silent on this point as to land; and the Courts in construing the Statute say that the express provision in the one case, coupled with its absence in the other, clearly indicates that part payment is not, and never was, intended by the Legislature to be part performance of an oral contract relating to land.

Marriage is not part performance. The Statute provides that contracts in consideration of marriage shall be in writing. An agreement made by word of mouth, that if a man marry a daughter, the daughter's father will give to her certain property, is not enforceable unless it is followed by some other act beside the marriage. If the father chooses not to fulfil his promise the daughter and her husband cannot enforce it. But if the father delivers over possession of the property, or, which amounts to the same thing, gives notice to the tenants to pay their rents to the daughter, or her husband, there is such part performance as will support an action for complete performance, and the father will be compelled by the Court to make a proper conveyance.

The Court will not compel performance of an oral contract which has been partly performed, if it is such that if put into writing the Court would not entertain it. The want of writing with part performance does not necessarily give the Court jurisdiction. It will only grant specific performance of an oral contract partly performed, where it was one which if put into writing was an enforceable contract.

(c) **Misrepresentation is a good ground for specific performance;** and this holds good not only in reference to marriage, but all other contracts. "If a representation be made for the purpose of influencing the conduct of the other party, and acted on by him, it will be sufficient, although not in writing, to enable him to the assistance of the Court for the purpose of realising such representance."

If, therefore, upon the marriage of two persons a representation be made by a third party upon the faith of which the marriage takes place, the party making such representation shall be bound to make it good. Lord Toulton once put this point thus:—"If any man upon a treaty for any contract will make a false representation, by means of which he puts the person bargaining under a mistake upon the terms of the bargain it is a fraud—it misleads the parties contracting on all the subjects of the contract. . . . The principle upon which all the cases upon this subject have been decided is, that faith in such contracts is so essential to the happiness both of the parents and of the children, that whoever treats them fraudulently on such an occasion shall not only not gain but shall even lose by it."

In such cases as these the plaintiff must base his case on the misrepresentation, for if he attempts to do so on contract he must show a written contract or sufficient part performance.

(d) **Fraud is another ground for relief.** The Court will enforce a parol agreement which has not been put into writing by the fraud of one of the parties, e.g., where an argument has been put into writing, but another containing different terms should be secretly brought in, and the complaining party should be induced to sign it by the misrepresentation of the other party, the Court will enforce the agreement not signed.

(e) **Written Contracts.** Most contracts dealing with land are reduced into writing, and many actions have arisen upon

written contracts, but the points raised upon them are not always the same as those raised on unwritten contracts. Sometimes the validity of the contract is disputed; sometimes the title to the property; sometimes the capacity or power of the parties to make the contract.

For information on these points the reader is referred to the recognized text-books on the branch of the law, as the construction of written contracts is not within the scope of this article.

It will be sufficient to say that the principles arising under the heads of misrepresentation, fraud, and mistake, are applicable to written contracts where they are tainted by these imperfections or wrong-doing, as well as to oral contracts, and that the Court will rectify written contracts where necessary under the two following heads:—

Error. Where an error has occurred in the reduction of the agreement into writing, and there has been no fraud, the Court will enforce the original agreement. An, for instance, when an agreement has been entered into for a lease of land at a term of rent, and the intended lessor insists that it was a lease of the agreement that the intended lessee was to pay rates and taxes, the Court will grant relief.

Contracts with Variation. A purchaser may successfully resist specific performance if he can prove by parol evidence that there has been a mistake in the contract. It appears to be now settled that in the case of a plaintiff seeking to have a contract enforced, specific performance is different. Parol evidence is not admissible in support of the plaintiff, but it is admissible in support of the defendant.

Edison. An owner of land had entered into a written agreement to grant a lease. Afterwards a dispute arose as to the quantity of land to be included in the lease. The landlord filed a Bill for specific performance of the agreement with a variation as to the quantity of land. The lessee filed a cross Bill for specific performance of the same agreement without the variation. The landlord, as plaintiff in his own suit, supported his claim for a variation by parol evidence, showing a mistake in making out the contract. The lessee, as defendant, denied making out the contract. The landlord decided against the plaintiff on the ground that the parol evidence was not admissible for the purpose of varying or altering a written contract, and he dismissed the Bill. In the other suit, in which the landlord was defendant, he put in the same parol evidence to prove a mistake in the contract. In this case the landlord's position was reversed: he was in the second suit relying specific performance on the ground of mistake, and by his evidence he satisfied Lord Eldon that a mistake had occurred, and the Chancellor decided in favour of the landlord, and dismissed that Bill on the ground that the parol evidence of mistake was admissible, it being put in in support of the defence. He therefore refused to direct specific performance by the landlord in favour of the lessee, as he had refused to do so in the first suit to direct specific performance by the lessee in favour of the landlord. Neither party succeeded as plaintiff, but both succeeded as defendant.

IV. PROCEEDINGS.

An action for specific performance is commenced in the same way as any other action is commenced. If in the County Court, it will be by plaint, with particulars setting forth the grounds of complaint. If in the High Court a short statement is endorsed on the writ to the effect that the plaintiff's claim is for specific performance of an agreement dated, &c., for, &c. This is generally followed by a statement of claim (plain to the "particulars" in the County Court action, although in theory, and not sometimes in fact, it may not be necessary, setting out the facts of the plaintiff's case and the grounds on which he desires relief).

The defendant is then obliged to deliver his statement of defence in the High Court (but not in the County Court), in which he raises all his objections, and on this the case goes to trial; subject, of course, to various interlocutory applications which it may be necessary to make. If the plaintiff succeeds at the trial in sustaining his defence, the plaintiff's case will be dismissed.

If, on the other hand, the plaintiff succeeds, the course to be followed will be determined by whether or not the defendant disputes the title, and if he disputes it, whether or not before the trial the title has been acquired into by the judge's chief clerk. e

If the defendant admits the validity of the contract but denies the title, and that is his principal ground of defence, either he or the plaintiff may before trial issue a summons for an enquiry into the title with a view of saving expense. If there has been such preliminary enquiry, and the judge's chief clerk certifies the title to be good, the judgment on the trial would declare that the plaintiff is entitled to specific performance, and direct (1) that interest on the purchase money be computed; (2) that an account of the rents and profits received by the plaintiff up to the hearing be taken; (3) taxation of plaintiff's costs; (4) that what is due for rents and profits be deducted from the purchase money, interest, and costs; and (5) that on the plaintiff executing a proper conveyance (to be sealed by the judge if the parties differ) at the expense of the defendant, and on plaintiff delivering up all deeds, &c., the defendant pay the balance to the plaintiff.

The judgment may also provide that if the defendant do not pay the balance the estate shall be sold, and the deficiency paid by the purchaser.

If, on the other hand, the title has not been enquired into before the trial, the judge will simply declare that the agreement should be specifically performed if the title be good, and direct an enquiry into title, with a further enquiry as to when a good title was first shown, and then reserve the further consideration of the action till such enquiry shall be completed.

If the judge's chief clerk certifies that the title is not good, the action will be dismissed with costs, and the deposit ordered to be repaid to the defendant. If, on the other hand, the title be found to be good, the judgment on further consideration will follow somewhat the form of the judgment first mentioned.

If the action be for specific performance of an agreement other than for the sale or demise of real estate, the plaintiff will take a different form, in accordance with the nature of the case, and the finding of the Court.

STAIRCASES AND CORRIDORS

(Building Act, 1855.)

In every public building and every other building containing more than 125,000 cubic feet, and used as a dwelling house for separate families, the floors of the lobbies, corridors, passages and landings and also flights of stairs shall be of stone or other fire-proof material and carried on fireproof supports.

STONE

Stones built into walls should be laid on their natural beds. In cornices and projecting mouldings the bed should be vertical and at right angles to the face of the wall. In arches the bed should be at right angles to the thrust of the arch.

A stone on its natural bed will bear a greater weight than with the bed placed vertically.

Tests.—Stones newly fractured should present a bright clean appearance, with grains well cemented together. A rough test to prove whether a stone is likely to stand in the masonry atmosphere of towns is to soak it for a few days in dilute sulphuric acid, containing one per cent. of sulphuric acid and hydrochloric acid.

Mr. C. H. Smith's test to find crumbly matter in stone:—

Break off a few chips about the size of a shilling with a chisel and a smart blow from a hammer, put them in a glass about one third full of clean water, let them remain undisturbed at least half-an-hour. The water and specimens together should then be agitated by giving the glass a circular motion with the hand. If the stone be highly crystalline, and the particles well cemented together, the water will remain clear and transparent, but if the specimens contain uncrystallized earthy powder the water will present a turbid or milky appearance, in proportion to the quantity of loose material contained in the stone. The stone should be damp, almost wet, when the fragments are chipped off."

HOPTON WOOD STONE

The Hopton Wood Stone is durable, compact, and of excellent colour. It is suitable for dressings, pavings, chimney pieces, firebricks, &c. The stone from Messrs. Koller Brothers' CONTRACTOR'S COMPENDIUM.

quarries has been used in important public works, including the New Law Courts, the Houses of Parliament, &c., &c.

MANFIELD STONE.

Manfield Stone is a very useful and durable fire stone, obtained of red, white, and yellow colours, the red being the most largely used, it giving a pleasing variety of tint. In contrast with other building stones Messrs. Faber Brothers have supplied the stone from their Manfield quarries for a large number of buildings in England, Ireland, and Wales, including the St. Pancras Midland Hotel, the Victoria at Hastings, Railway Station at Southsea, &c., &c.

ARTIFICIAL STONE.

There have been several artificial stones invented which compare favourably with the best natural building stones in the market, and large quantities of artificial stones have, within the last few years, been used in many important buildings, and as pavings in some of the principal thoroughfares of the Metropolis, and other large towns.

IMPERMEABLE CONCRETE MASONRY.

One of the most useful artificial stones in the market is that manufactured by Messrs. Frampton & Daniels, of Lincoln, and called by them Impermeable Concrete Blocks. It is capable of being made in any variety of grain colour, with a surface and body as hard as the hardest granite. It has stood many severe tests of frost and climatic changes without any sign of decay or deterioration. It is capable of being moulded into any variety of form and ornament as freely as natural stone can be carved or worked. Thus the most delicate relief ornament can be reproduced in it. Its cost is much less than for ordinary stone, which should lead to its being brought into extensive use. Particulars of the stone will be found in the CONCRETE CATALOGUE portion of this work.

STRAKE & GRANULATED STONE.

This stone is manufactured for paving, floorings, steps, &c. It is of an extremely hard and wear-resisting nature, and has been used for upwards of 700 miles of paving in Great Britain and abroad, besides for other purposes where a material of great hardness is required. It has received the highest awards at home and foreign exhibitions.

VICTORIA STONE.

This stone is manufactured in the following manner:—Grobby granite is raised from the quarry, broken up and crushed by machinery till sufficiently small to pass through a perforated gauge or sieve. The finely broken granite is then washed by a machine, which cleanses it thoroughly, and removes earthy particles, it is mixed with a defined quantity of Portland cement, of well-burnt clinker (ground fine), and placed in metal-lined moulds. In a few days the slab has "set" into a hard concrete, and is completed by being immersed for about ten days in saltpetre, or salt dissolved in caustic soda.

The stone has been tested as paving stone in some of the busiest thoroughfares in the Metropolis for the last twenty years, and is laid in London Bridge.

WISBEN'S STONITE ROCE.

This is an improved and specially prepared concrete made to resemble natural building stone in colour and texture, but like granite for durability and wear; made to any detail at about half the cost of stone or terra cotta; perfect in outline, and particularly adapted for architectural ornaments (cornices or otherwise), corbels, mouldings, quoins, chimneys and window heads, also for pillars, columns, caps and bases, pilasters, copings, &c.; also adapted for chimney pieces, hearths and firebricks. (See advertisement in the COMPLETE CATALOGUE.)

(For weights of Stone see "Weights of Materials.")

STREETS.

LATEST OUT NEW STREETS.

(Metropolis Management and Building Acts Amendment, 1882, and Bye-Laws.)

Roads laid out for carriage traffic must be at least forty feet in width, and for foot traffic twenty feet in width. The measurement of such width to be taken half on either side from the centre or crown of the road to the external or boundary wall of buildings or forecourts.

Persons desiring to lay out a street which would not have direct communication between two streets, must apply for permission of the County Council three months before the street is begun to be made, and the County Council may at any time within the three months decline to sanction the construction of such street, or give consent subject to such conditions as they may think fit to prescribe. If the person interested considers the conditions prescribed by the Council are unreasonable, he may appeal to the police magistrate for the district in which the street is situate, whose decision will be final.

Written notice must be given to the County Council at least four weeks before any new street shall be laid out, stating the proposed level and width, and accompanied by a plan showing the local situation of the same.

The carriage-way of every new street must curve or fall from the crown at the rate of three-eighths of an inch, at least, for every foot of breadth. The level of footpath must not be less than four inches or more than eight inches above the channel of the road way, and the slope of the footpath towards the kerb must be half-an-inch to every foot of width, if the footpath be unpaved, or not less than a quarter of an inch if the footpath be paved.

TERRA COTTA.

Natural terra cotta, clay contains 80 to 65 parts of silica to about 95 parts of alumina. Terra cotta shrinks 1-8ths to 1 13ths in burning. It should be free from fire cracks, have lines true, its surfaces not chipped or rubbed after burning, and each piece should be properly chambered with cross pieces. Blocks should average 1 to 3 feet cube, never more than 4 feet, usually 12 in. to 16 in. long, 8 in. to 16 in. high, 4 in. to 9 in. on bed, if hollow 1 in. to 2 in. thick. Large blocks should have a division of terra cotta across them; blocks required to bear weight should be covered with lime concrete or Roman cement (not Portland cement), which has a tendency to swell and burst the blocks. Joints should be joggled, stopped ends solid, beds even, and samples should show extreme limits of colour and evenness.

Although in a fragmentary and partial way, Terra Cotta has been produced in this country for many years past, yet it has occupied until very recent years a secondary position as an Architectural material. As a result of the encouragement and skill devoted to its application by several leading Architects and notably by Mr. Alfred Waterhouse, R.A., its capacities have become better understood, and since the erection of the Natural History Museum at South Kensington, it became obvious that under favourable conditions of manufacture a great future was in store for it.

Although Terra Cotta has suffered much, both in its manufacture and its application at the hands of the unskilful, yet it has gradually made its way to the front as an Architectural material, capable of the highest artistic expression. Its production was commenced as a specialty by the Darmstadt Works seven years ago, and they now produce it in several tones of buff or tan, tawny, or slightly red tan, and in a mellow red (corresponding to tones of Dunsford or Red Mansfield Stone), all of which are products of different combinations of local clay.

The manufacture has been carefully developed, and with the assistance of a large plant, and the experienced staff of specialists trained to the various manipulative processes, the highest class of Architectural work is turned out, having the highest qualities of artistic expression or technique.

Excellent productions in this material are made by many firms of well known standing, such as J. Cliff & Sons, Craven, Dunnill & Co., J. C. Edwards, Gibbs & Canning, J. Stiff & Sons

and, whose artistic designs and superior workmanship are of the highest description.

TILES.

There are two chief classes of tiles used in buildings, viz., Common Tiles, made of a variety of shapes for roofing, paving, and other purposes; and Encaustic Tiles, used for decoration.

COMMON TILES.

Common Tiles are made of strong clay, "weathered either by exposure to frost or sun, allowed to mellow in pits, tempered, pugged, cleared from stones, moulded, trimmed with a knife, thwacked (that is, beaten when half dry with a wooden bat) to correct warping, and burned in a down draught.

Amongst the best tiles of this description are those made from the Boreley Clay, and known in the market by the name of Boreley Tiles, the colour of which varies from pale strawberry red to dark brindle (a deep reddish brown), or even to blue, through an almost infinite gradation of colour, so that almost any colour can be obtained.

Old Boreley Tiles used on buildings two centuries and more ago, are as good and sound as when first laid, they get their weathering quickly and are non-porous.

PLAIN TILES.

Plain Tiles are 10½ inch x 6½ inch x ½ inch, and weigh about 24 lbs. each; and 11 inch x 7 inch x ½ inch, and weigh about 3 lbs. each. Pantiles are 12½ inch x 9½ inch x ½ inch, and weigh 4½ lbs. each.

For a roof of roofing requires 800 plain tiles laid to a 3 inch gauge, 7½ to 9 inches to a 4½ inch gauge, and 600 tiles laid to a 4 inch gauge, and 180 pan-tiles laid to a 10 inch gauge, 164 pan-tiles laid to a 11 inch gauge, and 180 pan-tiles laid to a 12 inch gauge.

One square of plain tiles weighs about 15 cwt.; and one square of pan-tiles about 8 cwt.

For 1 inch, 1½ inch, 2 inch, 2½ inch, 3 inch, 3½ inch, 4 inch, 4½ inch, 5 inch, 5½ inch, 6 inch, 6½ inch, 7 inch, 7½ inch, 8 inch, 8½ inch, 9 inch, 9½ inch, 10 inch, 10½ inch, 11 inch, 11½ inch, 12 inch, 12½ inch, 13 inch, 13½ inch, 14 inch, 14½ inch, 15 inch, 15½ inch, 16 inch, 16½ inch, 17 inch, 17½ inch, 18 inch, 18½ inch, 19 inch, 19½ inch, 20 inch, 20½ inch, 21 inch, 21½ inch, 22 inch, 22½ inch, 23 inch, 23½ inch, 24 inch, 24½ inch, 25 inch, 25½ inch, 26 inch, 26½ inch, 27 inch, 27½ inch, 28 inch, 28½ inch, 29 inch, 29½ inch, 30 inch, 30½ inch, 31 inch, 31½ inch, 32 inch, 32½ inch, 33 inch, 33½ inch, 34 inch, 34½ inch, 35 inch, 35½ inch, 36 inch, 36½ inch, 37 inch, 37½ inch, 38 inch, 38½ inch, 39 inch, 39½ inch, 40 inch, 40½ inch, 41 inch, 41½ inch, 42 inch, 42½ inch, 43 inch, 43½ inch, 44 inch, 44½ inch, 45 inch, 45½ inch, 46 inch, 46½ inch, 47 inch, 47½ inch, 48 inch, 48½ inch, 49 inch, 49½ inch, 50 inch, 50½ inch, 51 inch, 51½ inch, 52 inch, 52½ inch, 53 inch, 53½ inch, 54 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REGULATIONS OF METROPOLITAN BUILDING ACT APPLICABLE TO
TIMBER.

Loophole frames may be fixed within one inch and a half of the face of any external wall; but all other woodwork fixed in an external wall except breasters and story posts under the eaves, and frames of doors and windows of shops on the ground story of any building, must be set back four inches at the least from the external face of such wall.

Every breaster must have a backing in the direction of its length of four inches at the least at each end, upon a sufficient pier of brick or stone, or upon a timber or iron story post fixed on a solid foundation, in addition to its bearing upon any party wall; and the ends of such breaster may not be placed nearer to the centre line of the party walls than four and a half inches.

No bond timber or wood plate may be built into any party wall, and the ends of any beam or post bearing on such walls must be at the least four and a half inches distant from the centre line of the party walls. Every breaster bearing upon any party wall must be borne by a temple or corbel of stone or iron built through at least half the thickness of such wall, and of the full breadth of the breaster.

VENDORS AND PURCHASERS

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| <p>I. Title.
Length of.
Bd.
II. Preparing for Sale.
By Auction.
By Private Contract.
III. The Auction.
Biddings.
Deposit Money.
IV. The Contract.
Written.
Oral.
V. Unreasonable or inadequate price.
VI. Misrepresentation or Misdescription.
VII. Fraud or Concealment.
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X. Liability of Purchaser under Contract.
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Of Contract as signed.
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XIII. Insurance, Bankruptcy, etc.
Insurance.
Bankruptcy.
Assignments for benefit of Creditors.
Land Charges.</p> |
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The term *Vendor* means a person who sells, and the term *Purchaser* means a person who buys. Anything may be the subject of a sale and purchase, whether goods, ships, stocks, houses, or lands. The main principles of the law relating to buying and selling, so far as the contracts are concerned, are the same in the case of every purchase and sale, whatever its subject may be; but many variations occur to meet the varieties of the subject of contracts and the requirements of the mercantile world. When the term "*Vendors and Purchasers*" is used by lawyers, it is limited to the selling and buying of land and houses, and with that limited meaning, it is in common use.

It will be so used in this article.

I. TITLE.

Length of Title. In the absence of a special provision to the contrary, a vendor of house or land of freehold or copyhold tenure is bound to show a 40 years' title, i.e., a title beginning 40 years before the sale. A purchase deed, or a marriage settlement, is a good instrument with which to commence the title, or "root of title," as it is termed.

A will is not generally a good "root of title," as it involves the necessity of showing by previous leases, declarations, parish books, or other documents, that the deceased was not only possessed of, but absolutely entitled to, the property devised by him. Generally speaking, a deed which depends upon some previous deed or act for its validity, is not a good root of title, e.g., a disentailing deed, i.e., a deed by which the entail is removed, property has been "barred" or "cut off." It should be preceded by the deed which created the entail.

A title to copyhold is not sufficiently shown by the "admission," it should be preceded by the "surrender," on which the admission was founded. The length of a title always requires consideration, and sometimes more than ordinary care, as it is possible for a vendor to be placed in great difficulty, and put to great expense, in satisfying the requirements of a purchaser which have been overlooked by him. The consequence of this reason is it is always unwise for an owner to enter into a contract for sale without professional assistance.

Most purchasers are satisfied with a much shorter title, and it is now the usual practice to reduce the length of title by the contract to, where possible, a much shorter term than 40 years.

The title to a leasehold must commence with the lease, but the lease is more than 40 years old, it is generally sufficient to produce the lease, and a 40 years' holding under it; that is, the lease is 60 or 70 years old, it will be generally enough to produce the lease, and sufficient deeds to show how and by whom it has been held for 40 years prior to the sale.

Bad Title. If a vendor knows that his title is bad, either to the whole, or to a material part of the property, and conceals the fact from the purchaser, the contract can be set aside. If a vendor fraudulently induces a purchaser to accept his title and take a conveyance, he can afterwards be compelled to refund the purchase-money, and to pay costs as the penalty of his folly.

II. PREPARING FOR SALE.

By Auction. For a sale by Auction there must be a "Particulars" of the property, and "Conditions" on which the Vendor sells. These are annexed to each other, and, when a Memorandum at the end has been signed, the whole constitute a contract.

The particulars should disclose all easements or rights of property, such as a right of way or water, or, if the third parties, be land in a country district, "rights of sporting," or "rights of common," and everything else which may affect the value of the property.

The correct acreage should be stated; if the property to be sold is a house, a proper description of the house, the number of rooms, and conveniences, should be given.

Title and Land Tax should be seen to, so that if the property be liable to both, or either, a contrary statement should not be made on the particulars.

By Private Contract. Much of the work of providing for a sale by public auction is required for a sale by private contract, but not all. Particulars are dispensed with, as the intended purchaser generally obtains some information about the property before entering into a contract. But the property must be properly described in the contract. The Conditions of the Sale are also set out, and if sold free of Title or Land Tax a statement to that effect is inserted. These matters require the same attention as in a public sale.

When the parties have come to a conclusion as to their intentions the vendor's solicitor prepares a draft contract and sends it to the purchaser, or his solicitor, for approval. When approved and finally settled, each party makes an engagement, signs it, and delivers it over to the other side, the deposit, if any, being paid at the time.

III. THE AUCTION.

Biddings. A vendor cannot bid, nor employ an agent to bid for him, unless he reserves a minimum sum, that is to say, he must state on his particulars one of three things: either that the sale is without reserve, or that there is a reserve, or that he reserves the right to bid.

Biddings are no more than offers, and may be retracted before the hammer is down, and before acceptance. The retraction must be sufficiently loud for the auctioneer to hear it. If a bidder does not retract his bidding before its acceptance, and refuses to sign the contract, he makes himself liable to an action for injuring the sale where the sale is without reserve, and the vendor bids, or employs one to bid for him, the sale is void, as against the purchaser, if he chooses to throw up the contract.

Deposit Money. The auctioneer, solicitor, or other person named in the conditions receiving a deposit on a sale stands in the position of stakeholder, and must act, at his peril, part with it until the sale is completed. The usual practice is for the purchaser, on completion, to give him an order on the bank to pay the deposit to the vendor. If the stakeholder pay over the deposit to the vendor without the purchaser's authority, and the sale is not completed by reason of default in the title, he is liable to pay the amount to the purchaser, who may sue him for it.

The purchaser cannot recover interest upon the deposit, even though the stakeholder may have made interest upon it, but it is otherwise if the deposit be paid under the contract to the vendor himself. In this case interest may be claimed.

IX. WRITING CONTRACT.

Written Contract. The contract must be in writing, and signed by the party to be charged, or by his agent, or is cannot be enforced.

The contract should be in duplicate, each part signed by one of the parties and then exchanged. In this way the vendor holds the purchaser's signature, and vice versa. If litigation arises the vendor can proceed against the purchaser, because he holds a contract signed by the party (the purchaser) to be charged by him, the vendor; and, in like manner, the purchaser may proceed against the vendor, because he holds a contract signed by the party (the vendor), to be charged by him, the vendor. Neither party should sign a contract without first getting the other's signature as a duplicate.

The contract should contain the names of the parties, a proper description of the property sold, the price, time and place of completion, length of time, with subsidiary provisions for payment of interest after date of completion, if the sale is not completed on the day appointed, forfeiture of deposit on the failure of the purchaser to complete, and power for the vendor to rescind, together with any special conditions which may be necessary and applicable to the matter in hand.

Oral Contract. A contract for sale of land or houses may be made by word of mouth, but unless there has been a part performance of such contract it cannot be enforced. For instance, the vendor may deliver possession, or the purchaser may expend money in improving the property with the vendor's knowledge. In these cases the court will enforce the contract, but it will not do so if mere deposit has been paid; that is not part performance.

V. UNREASONABLE OR INADEQUATE PRICE.

A purchaser should be careful when negotiating for the purchase of a property not to mislead the vendor in any way. If he knows a fact which would materially affect the value to the vendor, the latter being ignorant of it, he should disclose it, such as the illness of a tenant for life, whose immediate death might considerably enhance the value. On the other hand, a purchaser is not bound to disclose a latent advantage with which he may be acquainted, and of which the vendor may be ignorant, such as the existence of minerals below the surface.

There is a case in the books where some land was agreed to be sold at a half-penny per square yard, and before calculation was made the purchaser persuaded the vendor to sign the contract. At the agreed price it came to £200, but on a subsequent calculation it turned out to be worth £2,000. The contract there was set aside on the ground that the purchaser had acted improperly.

VI. MISREPRESENTATION OR MISESCRIPTION.

All properly drawn conditions, or contracts, contain a clause that errors and mis-statements shall not annul the sale. But if the particulars or description be grossly erroneous or misleading, or contain a gross misrepresentation, or misdescription, the contract may be set aside at the purchaser's suit, and he may recover his deposit. If, on the other hand, the vendor sought to obtain specific performance of the contract he would fail if these were proved.

VII. PRUD OR CONVEYANCE BY VENDOR.

If the vendor induces another person to enter into a contract by fraud, misrepresentation, or by concealment of a defect either in the title or the property, the Court will set aside the contract.

A vendor once agreed to sell a house, knowing there was a defect in the main walls, which he not only did not disclose, but plastered over and covered up with paper. This was held to be a direct fraud, and the contract was set aside.

VIII. MISTAKE.

A mistake will not always vitiate a contract or a conveyance which has followed it. It may, however, sometimes do so. If, for instance, a mistake is made by a vendor, and the purchaser suffers it so as to get the property on more favourable terms, or if once it is conveyed than both parties intended; then the Court will correct the mistake. Generally speaking, however, if a vendor has made a mistake in respect of it, corrected afterwards. He should have been more careful.

IX. DUTY OF VENDOR UNDER CONTRACT.

The vendor is bound to proceed immediately after the signing of the contract to furnish the purchaser with an abstract of his title—to produce deeds in his possession or under his control—to ascertain where other deeds may be seen, to give all proper information as to rights, debts, &c., and other matters which arise on the title, for the satisfaction of the purchaser, and to commit no unreasonable delay in carrying the business to completion.

X. LIABILITY OF PURCHASER UNDER CONTRACT.

The purchaser is bound to pay the purchase money—assuming that the title is good, whatever may happen to the property after the contract has been signed. If the property bought be a house the purchaser should at once insure it, or arrange with the vendor to take over the benefit of the policy. This is useful, for if the house be destroyed or damaged by fire, the purchaser must bear the loss, and possibly lose the benefit of the vendor's insurance. This individual may follow an example already set by one man, who, when his purchaser applied for the policy money on the ground that the house had been burnt down after contract, but before conveyance, said, "No; you bought the house, but not the policy of insurance," and whose contention, when used by the purchaser, was upheld by the Court. Purchasers, therefore, should be careful as to this. Again, they should push forward the completion, so that they may not have to pay interest on the balance of the purchase money.

This is always part of the bargain if the purchase is not completed on the day fixed. Each party should be prompt and diligent, for if one is diligent and the other not, the consequences of delay may be thrown upon the defaulting.

XI. SPECIFIC PERFORMANCE OF A SIGNED CONTRACT.

If either party fails to complete a contract, and the title is good, the other party may, if he has not been guilty of fraud or misrepresentation, have the contract enforced by the Court, in an action for "specific performance." This is the only mode of getting a contract fully completed when one party fails to carry it out. If the contract contains a power for the vendor to rescind, he may avoid legal proceedings if he acts upon the power so reserved, provided, of course, he does so properly; or he may, if the contract provides for it, declare that the deposit is forfeited, and proceed to another sale, and sue the first purchaser for any deficiency arising on the second sale. But, generally speaking, an action for specific performance is the most usual course adopted by a vendor. If the vendor fails to complete, and the purchaser has done nothing to forfeit his right, he may have specific performance; or, if he chooses, he may sue for return of the deposit.

Neither party can obtain a decree for specific performance if his own conduct has not been free from fraud, or misrepresentation, for it is a maxim of equity that "he that seeks equity must do equity," and another, "he that comes into equity must come with clean hands."

Of a Contract with Variations. A vendor cannot get special performance of a contract with some variation in its terms, supported by parol evidence, except in one case, viz. where the variation is in favour of the purchaser. The Court will not allow a contract to be altered, or varied, as against a purchaser, by parol evidence that by some mistake something was omitted from the contract.

XII. DEATH OF PARTIES TO CONTRACT.

The death of either party to the contract after signature will not affect the destination of either the property or the purchase money. By the contract a "conveyance" has taken place; the land and has in equity been converted into money, and the purchase money will still in the hands of the purchaser has been converted into real estate. The result is this: that if the vendor die before completion his executors are entitled to the money as part of his personal estate, and if the purchaser die his executors must pay the purchase money out of his personal estate; but the property, if freehold or copyhold, goes to the purchaser's heir-at-law or devisee under his will, and if leasehold it forms part of his personal estate.

Purchasers, therefore, who are buying freehold or copyhold, and desire that it should not go to their heir-at-law, should see to it that their will, if they have made one, will operate on the property as they wish, and if not to alter it, or make one at once.

XIII. INSURANCES, BANKRUPTCY, ETC.

Insurances. These consist of judgments recovered in actions, *in preterit*, i.e., existing actions, Crown debts, i.e., debts due or obligations entered into with the Crown, and annuities charged upon the property bought. All these must be registered in the proper office at the Law Courts to affect a man's property, and this is constantly done, so that a person against whom there are judgments may not sell his property too easily. County Court judgments for £10 and upwards are also registered in the County Court Registry in Queen Victoria Street. A purchaser should search these registers before he completes his purchase to see that there is nothing entered against his vendor. If he finds anything, he should not complete until it has been discharged.

It should be added, however, that judgments of the High Court entered up after the 30th July, 1864, will not affect purchasers unless a writ of execution has been issued, and registered, the land actually delivered in execution, and the Sheriff has made his return previously to the completion of the purchase.

Bankruptcy. A purchaser should also search the records of the Bankruptcy Court to see if his vendor is, or has been, a bankrupt, and if he has been, that he obtained his discharge before he acquired the property which he agreed to sell.

Assignments for benefit of Creditors. A purchaser should also search the register of these deeds both at the Bill of Sale Office in the Law Courts, and in the Land Registry in Single Line, Holborn, that he may satisfy himself that the vendor has not parted with his property by any such deed.

Land Charges. The register, kept in the Land Registry, should also be searched to see if the vendor has made any charge on his property which comes under the Land Charges Registration and Searches Act, 1888. If he has, the sale should not be completed till it be discharged.

VENTILATION

A satisfactory system of ventilation must remove air charged with an excess of carbonic acid, and containing impurities of respiration and combustion, without inconvenience from draughts, at the same time maintaining as even and agreeable temperature.

A certain amount of ventilation takes place through doors, windows, fire-places, and through brick walls.

Vitiated air should be extracted at the highest possible point. In a large room or building it is advisable to extract the air through several openings, uniformly distributed. Fresh air should be admitted with an upward direction, above the level of the head, and be warmed in winter if possible. It should also be introduced at many points in the building at a low velocity, and with inlet tubes at least half as large again as exhaust tubes.

Each person requires at least from 3 to 5 cubic feet of air per minute. At Finsbury Technical College about 11 cubic feet of air per minute is provided in the class rooms, and 10 cubic feet per minute in the chemical laboratories and draughts closets.

Rule to find area of ventilating tubes in feet.—Multiply the number of people in the room by 4, and divide this product by 48 times the square root of the height of the tubes in feet.—*Tredgold.*

Table by Mr. Hoar, showing cubic feet of air discharged per minute through a ventilator with an area of one square foot

Height of Ventilator in Feet	Difference between Temperature in Room and External Air.				
	5°	10°	15°	20°	25°
10	110	164	200	235	260
15	148	202	245	284	318
20	184	242	285	329	368
25	218	280	318	368	410
30	251	316	347	403	450
35	282	350	376	436	493
40	313	384	407	468	531
45	348	418	437	493	565
50	380	452	470	518	599

If the openings for the admission of fresh air be smaller than those for the escape of the heated air, there will probably be a descending current of cold air in the same tube with the ascending current of hot air.

Inlet ventilators should provide for the admission of air in an upward direction, and it is advisable for the ventilator to widen out at the mouth to diffuse the air as it enters an apartment.

Ventilators should be simple in form and either automatic or very easily and inexpensively worked.

Capt. Douglas Galton said at the Domestic Economy Congress:

"The simple force of ventilation rest on the principle of an outlet for air warmed air, and an inlet for fresh air. The position of the inlet is of material importance, because the question as to whether draughts are felt or not, necessarily depends upon that. It is desirable to admit fresh air, especially cool air, at the upper part of the room, above the heads of the occupants. It thus becomes partially warmed by the air already in the room. The Sberingham Ventilator is admirable in this respect, in that it is placed near the ceiling, and the incoming air throws upwards. If, in addition to the Sberingham Ventilator, the fire is carried up from near the ceiling of the room, the air of a room, if warmer than the outer air, will pass up the flue, and its place be supplied with air through the Sberingham Ventilator—one will act as an outlet and the other as an inlet."

The following are some of the systems used with success:

Begle's Air Pump Ventilators are constructed on the following principle: air impinging upon and reflected from concave surfaces creates currents of air, which form a vacuum in an updraft, into which the vitiated air rushes to be carried away with the outgoing current.

Gibbs' Patent Weatherproof Extractor, manufactured by the Patentees, Messrs. John Gibbs & Son, of 27, Bechtel Street, Liverpool, is a ventilator of very superior description and design, one important distinctive feature of which is that of being strongly made, rivetted throughout, and entirely independent of solder in its construction, an advantage which will be at once appreciated by all practical men, to whom it is readily evident that this method of construction will remove all possibility of the ventilators falling to pieces, and, in fact, make them practically everlasting; in addition to which the inventors have wisely dispensed with the use of all loose plates (so liable to cause disagreeable rattling in windy weather) and have succeeded in producing a ventilator capable of creating a most powerful up-draught without the disadvantage of any moving parts (which are always so liable to derangement).

The extensive and continued use of Messrs Gibbs' ventilators by those who have already tried them is the best possible testimony in their favor.

Great attention has also been paid by Messrs John Gibbs and Sons to their design being such as would have a good solid appearance, and really harmonize with the workmanship and detail of any first class building, as such architecture may rely with confidence upon this fact.

Gibbs' Patent Noiseless Outlet Ventilator has, as its name implies, the advantage of being practically noiseless. Any one who has had experience with other ventilators of this form will at once appreciate the value of this invention.

Graham & Robson's Extractor consists of a contractor made of cast iron, inserted across a flue from 6 to 12 inches below a ventilator. The opening in the contractor being less than the size of flue, the rush of air immediately through the opening is greatly accelerated, and causes a sharp up current, which induces an exhaust through the ventilator from the apartment. Many of these ventilators have been successfully used.

Hayward Brothers & Bolekin manufacture a large number of Inlet and Outlet Ventilators of various patterns and descriptions, principal amongst which are the Sheringham Inlet Ventilator, and Mica Flat Outlet Ventilator.

Hayward's Sheringham Inlet Ventilators are fixed in the exterior wall, about two feet below the ceiling, on one or both sides of the window, and one or two of the improved Mica Outlet Ventilators are fixed in the chimney breast, in the flue, immediately under the cornice. By this arrangement the upper stratum of air in the room is continually changed imperceptibly and without draught. A great advantage, too, from this plan is that the windows have no need to be shut, and the fresh vents are not impeded, and the air of the room is absolutely fresh in the morning. This arrangement can generally be adapted to existing apartments with less trouble and expense than any other.

They also make Tobin's Inlet Tubes, Silk Flap Outlet Ventilators for air-exhausting shafts, Louvre Inlet and Outlet Ventilators, and Fresh-air Mica Inlet Valves for Drains.

Further particulars of the Manufactures of this firm will be found in the COMPLETE CATALOGUE.

Sherrin's Inlet and Outlet Ventilators.—The Inlet Ventilators admit the cold air into rooms of every description without draught, and are made in every design. The Patent Roof Ventilators are octagonal in form, and are so constructed that although the openings for the discharge of vitiated air are very numerous and large, yet a down draught is an impossibility.

A special feature of these Inlet and Outlet Ventilators is that they are all made by means of special machinery, which enables their being made without a large number of joints, and also in much smaller quantities than could be possibly made in hand-made Ventilators, although at a less price. (See Advertisement in the COMPLETE CATALOGUE.)

Strade & Co's Sun Burners are an effective means of ventilation. They create and maintain an upward current, which carries off and discharges all products of combustion at once in the outer air, and at the same time gives a most brilliant light. The Sun Burners are fitted with a self-acting valve, which opens directly the gas is turned on for lighting, and closes immediately it is turned off, thus preventing down draughts. The inner and outer covers are perfect and filled with mica, which not only allows the light of the burner to pass through, and avoids the casting of shadows upon the ceiling, but is an ornamental feature in their design.

WALL AND CEILING COVERINGS.

PAPERHANGINGS.

Paperhangings arrange themselves naturally into two great divisions, machine work and hand work; that is, papers printed from cylinders by steam machinery, and papers printed from blocks by hand power only. In both processes the printing is done from the raised surface of a roller or block.

In machine printing the design is raised above the level of the wooden cylinder by means of copper heads or tapes, driven

edge-wise into the wood following the contour of the design which has been previously drawn upon it, and the solid parts are filled in with felt. The paper passes over a huge drum in contact with the printing rollers and receives, during one revolution of the drum, all the colours necessary to complete it, each tint being printed from a separate roller, which in its turn is supplied with colour by a supplementary roller, covered with felt, which revolves in a bath or trough of colour. The paper, on leaving the printing machine, is carried away from the rollers by a large drum, where it is rapidly dried over a series of heated pipes, or pans. Machine printing has now been brought to a great state of perfection, and it is sometimes difficult to distinguish some of the best samples printed on specially sized paper from hand work, so far as the superficial appearance is concerned.

Block Printing.—The first operation in block printing is colouring the ground. In this the paper is laid upon a long table; the workman covers the whole surface with colour by means of two large round brushes held in either hand; a boy follows with another brush, to keep the colour alive; the man then goes over the whole again very lightly with a clean brush to finish the smoothing, and the paper is hung up to dry. The next step to colouring the ground is the printing. The blocks are made of two thicknesses of deal, glued together transversely to prevent warping, with a facing of pear tree wood. In broad, bold designs such as require felting in rollers, the design is cut in wood, the block is then planed, the block being bent out away, and the design left in relief; and in designs consisting of fine delicate lines copper bands are used as an roller making.

The normal size of the printing block is 21 in. square. In English papers they are almost all of that width, but they vary in length according to the nature of the pattern, some more, some less, and where a design is too large to print from one block it is made up of any number needful to complete it. In a design composed of two or more colours each colour is usually printed separately, the papers being slowly dried between the printings at the ordinary temperature of the atmosphere, but several colours may be printed at one time; they, however, tax the skill of the workmen and increase the cost.

Amongst modern improvements in paperstaining is the use of powdered mica on the grounds to produce a silky effect. The material itself is indestructible by fire, insoluble in water, and unalterable by atmospheric influences. When properly applied it produces an imperishable silky sheen on the paper, soft and rich in effect, especially by gas or other artificial light.

Flock Papers differ from water colour papers both in the material used to form the design and the medium employed in affixing it to the paper. The flock itself is laid upon a fine powder, and it is fixed to the paper by an oil colour of a specially sticky nature. The pattern is printed in this sticky oil colour, and the paper is immediately passed into a trough with a linen bottom, on which the paper rests; the flock dust is then thrown upon it and it is beaten with a case which makes the flock dance up in a cloud, and, by force of gravitation, fall down and sink firmly into the oil colour until the whole of the sticky surface is so evenly covered that it looks like a piece of cloth or velvet.

Raised Flock Papers are a development of the ordinary flocking process, the printing and flocking being repeated some after time, until the required degree of relief is obtained.

Patent Embossed Blocks.—In these papers the design is raised into relief by repeated printings and flockings, in the same manner as if intended to be painted over; it is, however, finished in coloured floccs that do not require painting over, and it is finely embossed under heavy pressure by means of heated dies, which give to the raised surface of the flock beautifully modelled appearance like carving in low relief.

Leather Papers are another important branch of the paperstaining industry. These are broadly of two kinds, the first printed like ordinary papers with one or many colours on thick tough paper, often varnished, and then stamped with a die, giving them an embossed or leathery look, and the next are made in the most important and lighter role, of vellum or silvered, and then coloured and lacquered by hand, producing a more artistic effect free from the monotony of printing or other mechanical aid.

GIBBS' PATENT
Noiseless Outlet Ventilator.



BRASS & IRON FRONTS

GIBBS' PATENT
WEATHERPROOF EXTRACTORS

IN CONSTANT AND EXTENSIVE USE BY THE ADMIRALTY, HER MAJESTY'S OFFICE OF WORKS, THE LEADING STEAMSHIP COMPANIES AND ARCHITECTS THROUGHOUT THE KINGDOM.

THEIR QUALITIES AND CAPABILITIES HAVE STOOD THE PRACTICAL TEST OF TIME.

GIBBS' PATENT
Noiseless Outlet Ventilator.



PLAIN & IRON FRONTS

JOHN GIBBS & SON.

**CHEAPEST,
STRONGEST,
AND
BEST VENTILATOR
IN THE MARKET.**

GIBBS' IMPROVED
VERTICAL INLET.



No 7 (Infant).
ORNAMENTAL BRACKET
PATTERN.

No 7

(Red Design)



**KINDLY
COMPARE MAKE
AND
PRICE.**



GIBBS' IMPROVED
VERTICAL INLET

No 4 (Circular Front)

STRONG GALVANIZED BOARD SCHOOL
PATTERN.

Gothic.

SOIL PIPE PATTERN.



(Registered Design)
PRICE ON APPLICATION

PRICE LIST-EX-WORKS, LIVERPOOL. (SUBJECT TO ALTERATION WITHOUT NOTICE)

ROOF VENTILATORS, Patterns No. 1 to 3, Strong Galvanized Steel Painted with Enamelled Paint			
Extractor, ribs, dia.	4 to 6 in. dia.	6 to 8 in. dia.	8 to 10 in. dia.
No. 1	1 10 7	1 7 6	1 7 6
No. 2	1 10 7	1 7 6	1 7 6
No. 3	1 10 7	1 7 6	1 7 6
Extractor with dia. 8 to 10 in. dia. £3 17 0			
No. 1	47 83	5 5 0	5 5 0
No. 2	47 83	5 5 0	5 5 0
No. 3	47 83	5 5 0	5 5 0
Extractor with dia. 12 to 14 in. dia. £3 17 0			
No. 1	47 83	5 5 0	5 5 0
No. 2	47 83	5 5 0	5 5 0
No. 3	47 83	5 5 0	5 5 0

ALL FURTHER PARTICULARS MAY BE HAD FROM THE SOLE PATENTERS AND MANUFACTURERS,

JOHN GIBBS & SON, Ventilating & Consulting Engineers,
27, SOUTH JOHN STREET, LIVERPOOL.

Telephone
Number,
1200

To examine
VENTILATION,
& REPAIRS

Armenian Flying-papers, formerly much used in the manufacture of papers, have of recent years been justly condemned as injurious to health, owing to the fine dust or particles of arsenic flying off from the surface of the paper and contaminating the air. Architects and builders should insist upon using none but non-arsenical papers for works under their control. It is not difficult to obtain such papers, and there is practically no difference in their cost over those of similar qualities in other respects made with arsenical colours.

JEFFREY & CO.'S VICTORIAN WALL PAPERS.

Jeffrey & Co.'s "Victorian Wall Papers" are a collection of designs larger in scale than the ordinary Patterns. The breadth of design, which is so desirable a thing in decoration, has in the Patterns been not infrequently the appearance of coarseness. The real danger in the selection of a wall-paper is lest it appear too small on the wall. Each impression of these Patterns bears on the margin the words, "Victorian Wall-Paper," in addition to the distinguishing name of the design. They are printed in ordinary colours, as well as in rich shades of varied tints, with or without gold.

LINDENHAY WATSON.

This material is manufactured in a similar manner to Lincolnton, its surface being impressed with a low relief which can be left in monotone or be handsomely decorated. It is impervious to moisture, has been used with success as an application for damp walls, and can be scrubbed or washed without injury.

WALL PAPERS.

English papers are 31 inches wide, and 12 yards long. Approximate number of pieces of English Wall-papers required for any room. (Allowance to be made for doors and windows.)

Measurement in feet round the walls.	Height of room in feet from skirting to ceiling.											
	6	7	8	9	10	11	12	13	14	15		
Number of Pieces Required.												
39 ..	4	4	5	5	6	6	7	7	8	8		
36 ..	4	5	5	6	6	7	7	8	9	9		
40 ..	4	5	6	6	7	8	8	9	9	10		
44 ..	5	5	6	7	8	8	9	10	10	11		
48 ..	5	6	7	7	8	9	10	10	11	12		
52 ..	6	6	7	8	9	10	10	11	12	13		
56 ..	6	7	8	9	10	11	12	13	14			
60 ..	6	7	8	9	10	11	12	13	14	15		
64 ..	7	8	9	10	11	12	13	14	15	16		
68 ..	7	8	9	10	11	12	13	15	16	17		
72 ..	7	9	10	11	12	13	14	15	17	18		
76 ..	8	9	10	11	12	14	15	16	17	19		
80 ..	8	9	11	11	13	15	16	17	18	20		
84 ..	9	10	11	12	14	15	17	18	19	21		
88 ..	9	10	12	13	14	16	17	19	20	22		
92 ..	9	11	12	13	15	17	19	20	21	23		
96 ..	10	11	13	14	16	17	19	20	22	24		
100 ..	10	12	13	15	16	18	20	21	22	24		

WALLS.

(Building Act, 1854.)

Recesses and Openings.—Recesses and openings may be made in external walls, provided, 1. That the backs of such recesses are not of less thickness than eight and a half inches; and 2. That the area of such recesses and openings do not, taken together, exceed one-half of the whole area of the wall in which they are made.

Recesses may be made in party walls, provided that 1. The backs of such recesses are not of less thickness than 13 inches;

and 2. That every recess so formed is arched over, and that the area of such recesses do not, taken altogether, exceed one-half of the whole area of the wall of the story in which they are made; and 3. That such recesses do not come within one foot of the same face of the external walls. But no opening may be made in any party wall except in accordance with the rules of the Metropolitan Building Act.

Prospect to External Walls.—If any gutter, any part of which is formed of combustible materials, adjoins an external wall, then such wall must be carried up so as to form a parapet one foot at the least above the highest part of such gutter, and the thickness of the parapet so carried up must be at the least 14 inches, reckoned from the level of the under side of the gutter plate.

Height of Party Walls above Roof.—Every party wall must be carried up above the roof flat or gutter of the highest building adjoining thereto, to such height as will give a distance of fifteen inches measured at right angles to the slope of the roof, or fifteen inches above the highest part of any flat or gutter, as the case may be, and every party wall must be carried up above any turret, dormer, lantern light, or other erection of combustible materials fixed upon the roof or flat of any building within four feet from such party wall, and must extend at the least twelve inches higher and wider on each side than such erection, and every party wall must be carried up above any part of any roof opposite thereto, and within four feet from such party wall.

Chases in Party Walls.—In a party wall no chase may be made wider than fourteen inches nor more than four and a half inches deep from the face of the wall, nor so as to leave less than eight and a half inches in thickness at the back or opposite side thereof, and no chase may be made within a distance of seven feet from any other chase on the same side of the wall.

THICKNESS OF DWELLING HOUSE WALLS.

Height up to 100 feet.

Length up to 45 feet.—Two stories, 21½ inches. Three stories, 17½ inches. Remainder, 18 inches.
Length up to 50 feet. Two stories, 26 inches. Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length unlimited.—One story, 20 inches. Two stories, 26 inches. Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.

Height up to 90 feet.

Length up to 45 feet.—Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length up to 50 feet.—One story, 26 inches. Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length unlimited.—One story, 20 inches. Two stories, 26 inches. One story, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.

Height up to 80 feet.

Length up to 40 feet.—One story, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length up to 50 feet. Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length unlimited.—One story, 26 inches. Two stories, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.

Height up to 70 feet.

Length up to 40 feet.—Two stories, 17½ inches. Remainder, 18 inches.
Length up to 55 feet.—One story, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.
Length unlimited.—One story, 26 inches. Two stories, 21½ inches. One story, 17½ inches. Remainder, 18 inches.

Height up to 60 feet.

Length up to 30 feet.—One story, 17½ inches. Remainder, 18 inches.
Length up to 50 feet.—Two stories, 17½ inches. Remainder, 18 inches.
Length unlimited.—One story, 21½ inches. Two stories, 17½ inches. Remainder, 18 inches.

Telegraphic Address "WALLPAPER, LONDON"



JEFFREY & CO.

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STANDARD PATTERNS (from Designs by above-named Artists).

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"Victorian" (Regd.)
Series of Wall Papers

Being a Collection of Designs, larger in scale than ordinary
Patterns adapted to the decoration of Mansions and
Staircases, and also for Rooms of moderate size

Books of Patterns of above sent on loan, upon application
stating what class of Papers are required

ESTIMATES GIVEN FOR CUTTING BLOCKS, AND PRINTING
ARCHITECTS' GOLD DESIGNS.



GOLD MEDAL, Paris, 1889.

JEFFREY & CO., 64, Factory & Show Rooms, Essex Road, LONDON, N.

SEE ILLUSTRATIONS, SECTION M, PAGES 454 to 457.

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Height up to 30 feet.

Length up to 30 feet.—Wall below the topmost story, 13 inches. Topmost story, 8½ inches. Remainder, 8½ inches.
Length up to 45 feet.—One story, 17½ inches. Rest of wall below topmost story, 13 inches. Topmost story, 8½ inches. Remainder, 8½ inches.
Length unlimited.—One story, 21½ inches. One story, 17½ inches. Remainder, 13 inches.

Height up to 40 feet.

Length up to 35 feet.—Wall below two topmost stories, 13 inches. Two topmost stories, 8½ inches. Remainder, 8½ inches.
Length unlimited.—One story, 17½ inches. Rest of wall below topmost story, 13 inches. Topmost story, 8½ inches. Remainder, 8½ inches.

Height up to 50 feet.

Length up to 35 feet.—Wall below two topmost stories, 13 inches. Two topmost stories, 8½ inches. Remainder, 8½ inches.
Length unlimited.—Wall below topmost story, 13 inches. Topmost story, 8½ inches. Remainder, 8½ inches.

Height up to 55 feet.

Length up to 50 feet.—From base to top of wall, 8½ inches. Length unlimited.—Wall below topmost story, 13 inches. Topmost story, 8½ inches. Remainder, 8½ inches.

Walls not exceeding 25 feet apart. If any external or party wall, measured from centre to centre, is not more than 25 feet distant from any other external or party wall to which it is tied by the beams of any floor or floors, other than the ground floor, or the floor of any story formed in the roof, the length of such wall is not to be taken into consideration, and the thickness of the wall will be the same as for walls of the shortest lengths given respectively.

Stories exceeding a certain height.—If any story exceeds in height 16 times the thickness prescribed for the walls of such story, the thickness of each external and party wall throughout such story shall be increased to one-sixteenth part of the height of the story, but any such additional thickness may be confined to piers properly distributed, of which the collective width amount to one-fourth part of the length of the wall.

No story enclosed with walls less than 15 inches in thickness shall be more than 10 feet in height.

Buildings not being Public Buildings or of the Warehouse Class.—All buildings, excepting public buildings, and such buildings as are hereinafter defined to be buildings of the warehouse class, shall, as respects the thickness of their walls, be subject to the rules given for dwelling houses.

RULES FOR THE WALLS OF BUILDINGS OF THE WAREHOUSE CLASS.

Definition of Warehouse Class.—The warehouse class shall comprise all warehouses, manufactories, breweries, and distilleries.

Height up to 100 feet.

Length up to 55 feet.—Base, 33 inches.
Length up to 70 feet.—Base, 30 inches.
Length unlimited.—Base, 31 inches.

Height up to 80 feet.

Length up to 60 feet.—Base, 30 inches.
Length up to 70 feet.—Base, 30 inches.
Length unlimited.—Base, 34 inches.

Height up to 60 feet.

Length up to 45 feet.—Base, 31½ inches.
Length up to 60 feet.—Base, 30 inches.
Length unlimited.—Base, 30 inches.

Height up to 70 feet.

Length up to 30 feet.—Base, 17½ inches.
Length up to 45 feet.—Base, 21½ inches.
Length unlimited.—Base, 26 inches.

Height up to 80 feet.

Length up to 35 feet.—Base, 17½ inches.
Length up to 50 feet.—Base, 21½ inches.
Length unlimited.—Base, 26 inches.

Height up to 90 feet.

Length up to 40 feet.—Base, 17½ inches.
Length up to 70 feet.—Base, 21½ inches.
Length unlimited.—Base, 26 inches.

Height up to 40 feet.

Length up to 35 feet.—Base, 13 inches.
Length up to 50 feet.—Base, 17½ inches.
Length unlimited.—Base, 21½ inches.

Height up to 50 feet.

Length up to 45 feet.—Base, 13 inches.
Length unlimited.—Base, 17½ inches.

Height up to 25 feet.

Length unlimited.—Base, 13 inches.

The above Rules are to be used in the same manner as the Rules previously given for the walls of dwelling-houses, and are subject to the same qualifications and conditions respecting walls not more than 25 feet distant from each other.

The thickness of the walls at the top, and for 16 feet below the top, shall be 15 inches; and the intermediate parts of the wall between the base and such 16 feet below the top shall be built solid throughout the space between straight lines drawn on each side of the wall, and joining the thickness at the base to the thickness at 16 feet below the top, as above determined; nevertheless in walls not exceeding 30 feet in height the walls of the topmost story may be eight inches and a half thick.

If in any story of a building of the warehouse class the thickness of the wall, as determined by the rules hereinbefore given, is less than one-fourteenth part of the height of such story, the thickness of the wall shall be increased to one-fourteenth part of the height of the story, but any such additional thickness may be confined to piers properly distributed, of which the collective width amount to one-fourth part of the length of the wall.

Walls built of Materials other than Brick.—The thickness of any wall of a building of the warehouse class, if built of materials other than brick, as shall be deemed to be sufficient if made of the thickness required by the above Rules, or of such less thickness as may be approved, with this exception, that in the case of walls built of stone in which the beds of the masonry are not laid horizontally no diminution shall be allowed in the thickness required by the foregoing Rules for such last-mentioned walls.

MINERALS.

Cross Walls.—The thickness of a cross wall, shall be two-thirds of the thickness herebefore required for an external or party wall, of the same dimensions, and belonging to the same class of buildings, but never less than 8½ inches; and no wall subdividing any building shall be deemed to be a cross wall unless it is carried up to two-thirds of the height of the external or party walls, and unless the recesses and openings therein do not exceed one half of the vertical surface of the wall in each story.

Arched Thickness of certain Stone Walls.—The thickness of every stone wall in which the beds of the masonry are not laid horizontally shall be one-third greater than the thickness prescribed in the lines aforesaid.

Buildings to which the preceding rules are inapplicable require the special sanction of the London County Council.

WARMING

Steam.—The principle of warming by steam is the rapid condensation of steam into water on coming in contact with cooling surfaces, the latent heat of steam being given out at the moment of condensation.

Hot Water.—There are two systems of heating by hot water—the large pipe, or low pressure, and the small pipe, or high pressure. In the former the pipes are generally of cast iron, the water is not heated above boiling point, and the boiler is usually of the saddle-bank description.

Alteration of levels in laying the pipes should be avoided, that the rising and descending streams of water may not be checked in the course of their flow, and to prevent the accumulation of air or steam in any part of the circulation.

Where two systems, separated by some distance, are to be warmed from one furnace, the connecting pipes may be smaller than those used for circulation in the apartments, as the water will pass more rapidly through a smaller pipe and less heat is lost.

In the high pressure system the water is heated to 400 degs. Fah. or more, but no steam or explosive or explosive vapour is generated as no air is left in the tubes. These are of strong wrought iron, usually 12 inch in diameter and 2 inch in wall, and work at a high pressure of 300 lbs. or more to the square inch. Good firms prove each apparatus by hydraulic pressure to 3,000 lbs to the square inch.

The great bulk of water in the large pipes employed in low pressure heating, by keeping hot for some time after the fire is out, renders this system applicable for greenhouses, conservatories, &c. The small bore pipes have an advantage in heating of habitable buildings by being far less conspicuous and unsightly; the water also circulates more rapidly, and the heat can consequently be very quickly attained. For drying closets, Turkish baths, &c., where high temperatures are required, this system is best adapted. The boiler, which consists merely of a coil of the same tube, is so designed as to secure the greatest advantage from the fire; it is claimed for the high pressure system that it is more economical than any known method of heating. Experiments have proved that, owing to the higher temperature at which they work, the small pipes are foot per foot about equal in heating capacity to those generally used in low pressure work: by the use of a chemical solution instead of pure water they can also be protected against the danger of frost bursts.

TO FIND LENGTH OF PIPE TO WARM A BUILDING BY HOT WATER

F.—Temperature of pipes. T.—Temperature required in building. A.—Temperature of external air. C.—Cubic feet to be warmed per minute. L.—Length of pipe.

$$L = \frac{P - A}{F - T} \times 0.046C, \text{ for 4 inch pipes,} \\ \times 0.06C, \text{ for 3 inch pipes and } 0.08C, \text{ for 2 inch pipes.}$$

In churches and public rooms, where heat is generated by respiration of a large assembly, the air does not require to be heated above 55 degrees to 58 degrees. A simple rule for finding length of pipe required, allowing for an average number of doors and windows and usual ventilation, is to take the cubical measurement of space and divide by 200 for 4 inch pipes, by 150 for 3 inch pipes and by 100 for 2 inch pipes.

Hot Air, Gravity Patent.—This air is heated in an air chamber usually constructed in a wall under or over the building being first taken from the outside, and conveyed through cast-iron pipes to the heating chamber. It is then brought up through brick flues and admitted through open pattern gratings in the floor of the building. At the same time the apparatus draws out through other gratings the cold air. In summer a constant supply of fresh external air passes through the cold air flues to cool and ventilate the building.

STOVE, GRATES, &c.

Grundy's Warm Air Ventilating Fire Grate is made in the form of a stove, the back of which is semi-circular in shape, with gills behind, and smoke nozzle on top—all cast in one piece. An iron pipe is inserted in the smoke nozzle, and carried for any length up the chimney, which for the said length, is used as a hot air pipe for supplying warm air to the room or rooms. The cold air is admitted from behind the stove at the bottom, and the warm air is conveyed into the rooms by means of gratings fixed in the walls.

Shirland's Patent Manchester Grate.—The object of this Grate is in addition to the heat given off by radiation, to supply large volumes of pure warm air either into the room in which the grate is fixed, or into other rooms above or adjoining. This is attained by means of a hermetically sealed warm air generating Manchester back, which forms an air-chamber at the back and sides of the Grate, lined with fire-tiles, and also under the back hearth, which is of iron. Cold air admitted from without, passing into these air chambers, is warmed and conducted by circular clay or iron pipes up the chimney breast to the outlets into rooms. This patent arrangement is applicable to every design of fire grate, and does not alter the appearance, though it converts the ordinary stove-grate open fire grate into the most economical of Grates, and largely promotes ventilation.

Shirland's Patent Combination Open Fire-place Manchester Stove. This Stove is constructed on similar principle to the Patent Manchester Grate, having air-chambers at sides, back, and under fire-box, made of iron, lined with fire-clay. Cold air from the outside is passed through these chambers and delivered in large volumes into room through the ornamental perforated top of Stove, thus both warming and ventilating. These stoves are made in almost every design, and are most suitable for large rooms having no fireplaces, such as Hospital Wards, Schools, Churches, Asylums, Banks, &c. They are made with either up or down draught smoke flue, and can be fixed in any part of room, and will burn any description of fuel.

Shirland's Patent Underground Hot Air Stove.—This Stove, as its name implies, is fixed in the basement of the building to be heated. Cold air from the outside is thoroughly warmed in its passage through the various air chambers of the stove, and is then delivered in large volumes into the rooms to be heated through suitable gratings in the floor. Large buildings, such as Churches, Chapels, Public Halls, &c., are thus easily maintained at an equable and agreeable temperature throughout, and the ventilation greatly promoted. The Stove will burn any description of fuel, and, being fixed with fire-clay, is, like the Manchester Grates and Stoves, practically indestructible.

Strode and Co.'s Cast-iron Gas Fire for fitting into ordinary grates. A specially prepared indestructible fire-clay lamp is fitted into the grate, and covered with small pieces of asbestos felt. The fire-clay lamp has an aperture through which the gas flames pass from a spring-bar fitted in front and underneath the grate. The bar has an air-chamber fitted to it so that the gas is consumed on the atmospheric principle, for heating purposes the most economical, and one preventing the formation of soot.

STOVE, GRATES.

Clark's Patent Syphon Stoves are so constructed that all small and smoky given off by the burning of the gas or oil used for generating the heat is got rid of, and by a process of condensation set up within the stove itself avoiding the necessity of using a flue pipe, as in the case of other stoves. For halls, rooms, offices, and almost every position this advantage is most desirable where a coal fire is not practicable.

WATER.

Raw Water, owing to the absence of salts of lime and magnesia, is very acid, and suitable for washing and cooking purposes.

River Water is generally good and palatable for drinking, unless sewage and other impurities are allowed to flow into it.

Spring Water is considered the best for most purposes, especially for drinking. Springs are mostly the outflow of underground reservoirs of water at a greater height; or they may be the outflow of lakes or other elevated sheets of water. Springs arise from the water seeking its own level, or probably in some instances from its being forced up by the development of gases.

Artesian Wells are springs artificially formed by boring the ground until a sheet of water is tapped, which has in some part of it a higher level, so which level the water as once rises. The water is sometimes hot, and badly aerated, and requires to be exposed to the air before it becomes palatable, but it is generally free from impurities.

INFORMATION, TABLES, ETC.

(TABLES.)

LENGTHS OF A FOOT IN DIFFERENT COUNTRIES.

	Eng. Ins.		Eng. Ins.
Spain	11.93	Prussia	12.96
Holland	12.74	Austria	12.45
Sweden	13.69	Portugal	12.96
America	12.00	Russia	13.75
Denmark and Norway	12.35	France, metre ..	12.97

AVOIRDUPOIS WEIGHT.

16 drachms	= 1 ounce	32 cwt.	= 1 ton
16 ounces	= 1 lb.	1 lb. x 1000 ..	= cwt. nearly
28 lbs.	= 1 cwt.	1 lb. x 1000 ..	= tons nearly
112 lbs.	= 1 cwt.	1000 grains ..	= 1 lb. avdp.
		1000	= 1 oz.

TABLE.

For purchasing Leases, Estates, or Annuities, for terms of Years certain, showing the number of Years' purchase to repay the Purchaser his Principal and Interest at the various rates.

LENGTHS OF A MILE IN DIFFERENT COUNTRIES.

	Eng. Yds.		Eng. Yds.
Spain	1,100	Spanish	5,028
Latin	1,467	German	5,866
English	1,760	Swedish and Danish	7,333
Scotch	1,684	Hungarian	8,650
Irish	2,200	Norwegian	12,400
Poles	4,400	French League ..	3,666

SQUARE MEASURE.

169 parts	= 1 square inch.
144 square inches ..	= 1 square foot
9 square feet	= 1 square yard
3752 feet	= 1 square rod or pole
40 rods	= 1 square rood
4 roods	
160 rods	
480 yards	= 1 acre
43560 feet	
10 square chains ..	
1 hectare	= 2.472 acres
640 acres	= 1 square mile
1 chain wide	= 8 acres per mile length
50 inches x 1000 ..	= square feet nearly
80 yards x 1000 ..	= acres nearly
7140 square yards ..	= 1 Irish acre
6130 square yards ..	= 1 Scotch acre

LAND MEASURE.

40 square poles	= 1 square rood
4 sq. rods, or 4.840 sq. yds.	= 1 square acre
640 square acres	= 1 square mile
10 square acres	= 1 third of land
100 square acres	= 1 half of land
40 hides	= 1 barony

SOLID OR CUBIC MEASURE.

1728 cubic inches ..	= 1 cubic foot
27 cu. ft.	= 1 cubic yard
40 cu. ft. of rough, or	
50 cu. ft. of hewn timber	= 1 ton or load
48 cubic feet of timber ..	= 1 shipping ton
128 cubic feet	= 1 cord of wood
108 cubic feet	= 1 cord of wood

YEARS PURCHASE.

	3 p.c.	4 p.c.	5 p.c.	6 p.c.	7 p.c.	8 p.c.	9 p.c.	10 p.c.
1	0.07	0.06	0.05	0.04	0.04	0.03	0.02	0.02
2	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
4	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
5	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
6	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
7	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
8	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
9	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
10	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
11	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
12	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
13	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
14	1.26	1.26	1.26	1.26	1.26	1.26	1.26	1.26
15	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28
16	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
17	1.32	1.32	1.32	1.32	1.32	1.32	1.32	1.32
18	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34
19	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36
20	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38
21	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
22	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
23	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
24	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46
25	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48
26	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
27	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52
28	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
29	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
30	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
31	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
32	1.62	1.62	1.62	1.62	1.62	1.62	1.62	1.62
33	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
34	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
35	1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
36	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
37	1.72	1.72	1.72	1.72	1.72	1.72	1.72	1.72
38	1.74	1.74	1.74	1.74	1.74	1.74	1.74	1.74
39	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
40	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78
41	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
42	1.82	1.82	1.82	1.82	1.82	1.82	1.82	1.82
43	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
44	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86
45	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88
46	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
47	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
48	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94
49	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96
50	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
51	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
52	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02
53	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
54	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06
55	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
56	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
57	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12
58	2.14	2.14	2.14	2.14	2.14	2.14	2.14	2.14
59	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16
60	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18
61	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
62	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22
63	2.24	2.24	2.24	2.24	2.24	2.24	2.24	2.24
64	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26
65	2.28	2.28	2.28	2.28	2.28	2.28	2.28	2.28
66	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
67	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32
68	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
69	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
70	2.38	2.38	2.38	2.38	2.38	2.38	2.38	2.38
71	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
72	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
73	2.44	2.44	2.44	2.44	2.44	2.44	2.44	2.44
74	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46
75	2.48	2.48	2.48	2.48	2.48	2.48	2.48	2.48
76	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
77	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52
78	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54
79	2.56	2.56	2.56	2.56	2.56	2.56	2.56	2.56
80	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58
81	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
82	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62
83	2.64	2.64	2.64	2.64	2.64	2.64	2.64	2.64
84	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66
85	2.68	2.68	2.68	2.68	2.68	2.68	2.68	2.68
86	2.70	2.70	2.70	2.70	2.70	2.70	2.70	2.70
87	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
88	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74
89	2.76	2.76	2.76	2.76	2.76	2.76	2.76	2.76
90	2.78	2.78	2.78	2.78	2.78	2.78	2.78	2.78
91	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
92	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82
93	2.84	2.84	2.84	2.84	2.84	2.84	2.84	2.84
94	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86
95	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88
96	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90
97	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
98	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
99	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
100	2.98	2.98	2.98	2.98	2.98	2.98	2.98	2.98

Thus, £65 per annum for 40 years at 6 per cent. is worth 1595 years' purchase, or 159.5.

LEASEHOLD PROPERTY.

1st class, 6 per cent.; 2nd, 6½ per cent.; 3rd, 7 per cent. 4th, 7½ per cent.

NOTES, ADDITIONAL INFORMATION, TABLES, TESTS, &c.

NOTES, ADDITIONAL INFORMATION, TABLES, TESTS, Etc.

ADDRESS REGISTER OF ARCHITECTS.

1—ENGLAND. 2—IRELAND. 3 SCOTLAND. 4—WALES. 5—ABROAD.

† Fellows of the Royal Institution of British Architects

* Associates of the Royal Institution of British Architects

This Register is compiled from the Lists of Members of the Royal Institution of British Architects and other Land Societies throughout the kingdom, and includes other Architects whose names and addresses have been received by the Editor. The Editor will be glad to receive corrections for the next issue, and the business cards of other Architects that the List may be extended.

1—England.

BEDFORDSHIRE

Bevan, J. R., Luton
Brown, C. * 35, Ashburnham Road, Bedford
Goodman, A. P., The Gables, Bedford
Hadley, E., Station Road, Biggleswade
Highton, C. * 12, Victoria Terrace, Bedford
Jackson, T. J., Cardington Road, Bedford
Lawrence, J. T., Leighton Buzzard
Miles, J., De Bury Avenue, Bedford
Pearson, W. J., Market Hill, Luton
Said, A. E., Church Street, Luton
Usher & Ambrose, 9, St. Paul's Sq., Bedford
Watson, W., Wyon Park, Bedford
Young, H., 92, Midland Road, Bedford.

BREKSHIRE

Albery, F. W. 4154, Friar Street, Reading
Cooper & Son, Blagrove Street, Reading
Davies, T. V. H., Windsor
Dixon, S., Bearwood, Wokingham
Flint, H., "Tidcombe," Newbury
Greenaway, J., 19, Duke Street, Reading
Money, J. H., The Broadway, Newbury
Morris, J., 19, Friar Street, Reading
Ravenhill, W., 6, Market Place, Reading
Stevensbury, J., Maidenhead
Smith, C. * 124, Friar Street, Reading
Smith, C. S. * 164, Friar Street, Reading
Trotter, C. B., Blagrove Chambers, Reading
Webb, G. W. * 119, Castle Street, Reading.

BUCKINGHAMSHIRE

Carter, C. Wood Street, Great Marlow
Chambers, W. O., Manor House, Deaford
Pars, Iver
Harris, E. S., Wolferton Street, Mary, Slazy
Stratford
Lacey, G. Virginian Cottage, Aylesbury
Routage, W. E., Slough
Vernon, A., High Wycombe

CAMBRIDGESHIRE

Aiken, T. D. * Clare Villa, Cambridge
Bays, E., Cambridge
Bowler, W. J., Carleton, Brooklands
Fawcett, W. M., Cambridge
Fitcham, J., Newmarket
Holand & Son, Newmarket
Holman, W. J., Fitcham, Ely
Roe, H. W., Park House, Cambridge

CHESTER

Bird, D. * Mayfield, Sale
Branton, J., 59, Hamillon Square, Birkenhead
Connell, F. J., 39, Hamillon Street, Birkenhead
Crooke, E. A. * 84, Nantwich Road, Crove
Crowther, J. S. * Endeavour, Alderley Edge
Davies, J. H., 14, Newgate Street, Chester
Douglas, J., 6, Abbey Street, Chester
Eaton, W. R., 44, High Street, Northwich
Ewing, C. A. * 8, St. Werburgh Street, Chester
Furner, E., 3, Hightown, Crewe
Gill, G. (Gilmour), Stalybridge
Haskin, P. * Ardmore House, Sale
Johnston, C. W., Whaley Bridge
Jones, J. R. & Co., 50, Hamilton Sq., Birkenhead
Lee, W., Retail near Chester
Lockwood, T. M. * 50, Foregate St., Chester
Lubbock, W., Duncan Street, Birkenhead
Macnamara, J., Hall Street, Altrincham
Richardson, A., 34, Hamilton Sq., Birkenhead
Rimmer, H., Cross House, Chester
Ritchie, A., Chester
Spencer, N. * The Knoll, Falcove Park, Wilm-
low
Williams, R. & B. O., 35, Argyle St., Birkenhead
Wilson, J., The Vines Greenway Rd., Runcorn

CORNWALL

Andrew, T. H., Looe
Calwell, O. * 4, Monah Terrace, Penzance
Cheydden, W. L. * 2, Heaton Vc., Redruth
Hicks, J., Redruth
Jenkins, W. J., Redruth
Pete, O. B. * The Walk, Launceston
Roe, W. G., Camilla Villa, Fort St., Marazion
Sassoon, J., Greenbank Lane, Looe
Skeithbury, A. R., Looe
Trenail, S., 80, Lemon Street, Truro
Trenail, J., 51, Chapel Street, Penzance
Trenail, J. W. * 29, Clarence St., Penzance
White, H., Penzance
Womersley, T., 21, Woodhouse Terr., Falmouth

CUMBERLAND

Banks, T. L. * 22, Lowther Street, Whitehaven
Bricket, D., 43, Lowther Street, Whitehaven
Faggsfield, C., Senhouse Street, Maryport
Ferguson, C. J. * 30, English Street, Carlisle

Moffat, J. S. * 33, Church Street, Whitehaven
Munich, J., 39, Lowther Street, Carlisle
Olliver, G. D. * Carlisle
Parker & Crompton, 17, Lowther Street,
Whitehaven
Scott, T. T. * 14, Bank Street, Carlisle
Sheffield, T., High Street, Wigton
Watson, G., 18, Worcester Street, Penrith

DEVONSHIRE

Appleton, E. * 2, Vaughan Parade, Torquay
Buck, E. H., Dartmouth
Farrar, F. V., Parkview House, Victoria Road,
Torquay
Bridgman, G. S., Warwick Lodge, Paignton
Chadleigh, J., Kingston Rd., Newton Abbot
Colclough, N. G., Palace Arcade, Paignton
Cole, C., Queen Street Chambers, Exeter
Conlin, F. J., 7, Bedford Circus, Exeter
Crocker, J., 101, Queen Street, Exeter
Foster, J. B. * 4, Cambridge Street, Plymouth
Fuller, R. N. * Cabadge, Yard Exeter
Gale, W. H. * 6, Oxford Grove, Ilfracombe
Harbottle, E. H., 3, Canby Chambers, Queen
Street, Exeter
Harvey, J., Baring Street, Plymouth
Hayman, H. * 28, Port Street, Barnstaple
Hase, J. J., Looker Street, Plymouth
Hodge, J. L., 32, Courtyard Street, Plymouth
Jernham, J., 23, Paa Street, Exeter
Luff, W. G., Manor Office, Devonport
Medford, W. C., Windy Cross, Torquay
Norman, A. * 3, Beckland Terrace, Plymouth
Packham, Crooke & Smart, 93, Park St., Exeter
Parker, A. S. * 2, Tara Vcl., Polkiss Rd., Exeter
Pelsack, R. H., Bedford Villa, Plymouth
Pinn, J. M., Exeter
Lyon, J., 1, Waddon Road, Exeter
Pol, J., 1, Bedford Cross, Exeter
Pinn, J. M., 30, High Street, Exeter
Thorne, A. J., Barnstaple
Toll, J. H., 15, High Street, Barnstaple
Toll, W. M., Highlands, Totnes
Underwood, M., 25, St. Aubyn St., Devonport
Warren, E. G., Post Office Chambers, Exeter
Webb, E., Castle Street, Barnstaple
Wilson, G. M., 2, High Street, Exeter
Wilson, G. M., Bridge Buildings, Bideford
Yentley, J., 105, High Street, Lincrobie

(CONTINUED ON COMPANION)

K*

DERBYSHIRE.

Argyle, R. Ripley near Derby
 Colson, G. M. All Saints' Chambers, Derby
 Coulthart & Root, 4, Albert Street, Derby
 Eaton, A. Albert Street, Derby
 Evans, M. R. Derwent Street, Derby
 Fearn, J. W. Chesterfield
 Godwals, E. New Mills, near Stockport
 Haslam, G. South Street, Ilkington
 Hawke, R. G. Norfolk Square, Glossop
 Hill, A. C. F. St. Paul Street, Derby
 Hunt, C. W. The Town Hall, Lenton
 Mason, H. W. H. 31, Palace Street, Derby
 Mills, G. Y. Old Bank Chambers, Longate
 Naylor, J. R. 4, Old Bank Chambers, Longate
 Derby
 Turkin, J. & Son, Derby
 Perry, H. R. 4, Oak Cottage, Western Bk., Derby
 Ridgeway, E. R. Longton
 Robinson, F. J. 1, Strand Chambers, Derby
 Robinson & Son, 13, Corporation St., Chesterfield
 Sheldon, J. Longton
 Simpson, J. D. Clarence Cottage, Fairfield, near Buxton
 Southan, W. G. 1, Bridgehead, near Derby
 Strain, L. W. Garrison Chambers, Buxton
 Treharne, C. J. Architects to the Midland Railway Company, Derby
 Wain, R. Duffield Derby
 Ward & Son, Salingside, Chesterfield

DORSETSHIRE.

Bennett, R. C. 10, Gloucester St., Weymouth
 Clifford, J. E. Swains
 Cridmore & Son, Weymouth
 Farrall, J. Sherborne
 Fletcher, W. J. Wimbore
 Foches, W. W. Weymouth
 Malby, P. T. Dorchester
 Pearce, E. Parade, Poole
 Seppitt, J. Toot Hill, Shaftesbury

DURHAM COUNTY.

Bage, J. Stockton
 Cave, F. 60, Fawcett Street, Sunderland
 Clark & Munro, Fawcett, Darlington
 Clapham, E. R. North End, Stockton-on-Tees
 Croser, W. 38, St. Hall, Durham
 Donald, J. W. 4, King Street, South Shields
 Evingham, J. 62, John Street, Sunderland
 Fletcher, G. Prince Regent St., Stockton-on-Tees
 Fowler, C. H. Durham
 Fox, W. 3, Albert Street, Durham
 Garry, J. Church Street, West Hartlepool
 Graden, H. T. 40, Sadler Street, Durham
 Greaves, H. M. Albany Chambers, South Shields
 Hanson, J. W. Exchange Buildings, S. Shields
 Henry, J. 33, North Bala, Durham
 Heskin, G. 3, 4, Darlington
 Hudson, J. 33, Greenwell Street, Sunderland
 Lacey, W. Baby Castle, Darlington
 Milburn, W. 35, West Sumner, Sunderland
 Milburn, T. R. 4, Roker, Sunderland
 Middleton & Green, 25, Fawcett St., Sunderland
 Morton, J. H. 1, 2, King Street, South Shields
 Ord, G. 16, The Avenue, Durham
 Piddett, J. P. 24, High Row, Darlington
 Potts, J. 3, John Street, Sunderland
 Roundhouse, J. W. Wick Hill
 Sturt & Dockway, Commercial Chambers, South Shields
 Thompson, R. W. Bishop Auckland
 Tilman, J. 13, Bridge Street, South Shields
 Tildan, T. 1, 5, Bridge Street, Sunderland
 Turnbull, C. 34, York Street, West Hartlepool
 Watson-Watson, J. W. Stanley Hall (Northumberland), Stanley Bridge
 Westwell, H. H. 31, Stockton-on-Tees

ESSEX.

Baber, T. H. Waltham, Messrs. Claxton-on-Sea
 Beanton, P. Waltham Chase Park, Waltham-on-the-Naze
 Chancelor, F. Chelmsford
 Dawson, C. J. Barking

Goodey, J. F. 2, Victoria Chambers, West
 Sockwell Street, Colchester
 Harris, P. E. L. 3, Mayence Villas, New London
 Road, Chelmsford
 Hooper, J. D. Woodford
 Johnson, F. H. Saltaire Walken
 Morris, F. R. Colchester
 Mould, W. A. 4, Brentwood
 Newman, J. T. 1, Colchester Hatch, Brentwood
 Page, G. H. Trinity Chambers, Colchester
 Parfeson, C. 4, Claremont Vibs. Chelmsford
 Scarpell, W. 31, North Street, Colchester
 Topley, H. 2, 3, Belmont Villas, Albert Road,
 Bostham H. 11
 Winter, J. Dana Lodge, Epping

GLOUCESTERSHIRE.

Barnes, E. W. 1, Guildhall Chambers, Bristol
 Bedford, J. C. 26, Nicholas Street, Bristol
 Bernard, W. L. 1, 2, Broad Street, Bristol
 Bevan, J. 4, Unity Street, Bristol
 Bond, F. B. 1, Claremont Place, Clifton
 Clarendon, W. London Road, Bristol
 Cox & Humphries, 1, Promenade, Cliftonham
 Crisp, H. 31a, Clare Street, Bristol
 Dwyer, E. G. 4, Bourton-on-the-Hill, Moreton
 in the March
 Edwards, E. H. 3, Clare Street, Bristol
 Falconer, G. M. All Saints' Courts, Bristol
 Ford, W. H. C. 3, Bowcott, Bristol
 Frost, J. M. 30, Broad Street, Bristol
 Gaskell, W. B. Alliance Chambers, Cam St., Bristol
 Gough, W. K. 24, Bridge Street, Bristol
 Harford, A. H. Tewkesbury
 Hughes, R. M. 33, Park Place, Clifton, Bristol
 Harding, H. W. 51, Prince Street, Bristol
 Haslam, G. 30, Broad Street, Bristol
 Hawkins, D. 1, North Place, Cliftonham
 Hurst, M. C. M. 30, Broad Street, Bristol
 James, H. J. 1, Wellington Chambers, 12, Bridge
 Street, Bristol
 Jones, W. E. 1, 2, Princes Street, Bristol
 Judge, F. 2, 3, Richmond Rd., Moulsham, Bristol
 La Touche, J. H. 2, 3, 4, Clare Street, Bristol
 Lysaght, T. R. Cannon Ho., Colham Pk., Bristol
 Medland & Son, Gloucester
 Middleton, F. & P. 1, Bedford
 Buildings, Cliftonham
 Moore, J. P. 3, Berkeley Street, Gloucester
 Moscard, J. C. J. Albion Chambers, 25,
 Nicholas Street, Bristol
 Munro, P. & Son, St. Stephen's Chambers,
 B. & W. Street, Bristol
 Nicholson, T. Guildhall Chambers, Broad St., Bristol
 Oatley, G. H. 87, Clare Street, Bristol
 Pinkney, A. B. 2, Clarence St., Cliftonham
 Pope & Paul, 3, Unity Street, Bristol
 Price, W. H. Grove Road, Badminton
 Roberts, T. P. 7, Field Villas, 273, Gloucester
 Road, Badminton, Bristol
 Rowley, C. A. 51, Prince Street, Bristol
 Sadler, G. W. 47, High Street, Cliftonham
 Skinner, W. S. 31, Prince Street, Bristol
 South, W. H. 1, Park View, Tewkesbury
 Thomas, J. Albion Chambers, Nicholas
 Street, Bristol
 Thomas, G. Albion Chambers, Nicholas
 Street, Bristol
 Trew, J. W. & Son, 33, Broad Street, Bristol
 Villier, J. 11, Canby, Cliftonham
 Voley, W. W. 1, 45, Park Street, Bristol
 Waller, P. S. 1, 4, College Green, Gloucester
 Waller, F. W. 1, 2, College Green, Gloucester
 Ward, F. W. 1, 2, Small Street, Bristol
 Wood, J. 32, Park Street, Bristol
 Wood, J. 2, 3, 4, Westbury Park, Durham
 Down Street
 Wood, W. B. 12, Queen Street, Gloucester

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 Bone, H. H. 16, Water Street, Portsmouth
 Burton, E. H. 4, 5, & 6, Town Hall Chrs. Bournemouth
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 Colson, J. 45, Jersey Street, Wanchester
 Croxley, R. A. 1, Highfield House, Alton

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 Hillary, J. Longarish, Whitehaven, Lancs.
 Hooker, W. 1, Junction Road, Andover
 Lawton & Deakin, Shaftesbury Hall Chambers,
 Bournemouth
 Lemon, J. 4, Landwards House, Southampton
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 Miles, C. Observer Chambers, Bournemouth
 Mitchell, C. 1, Church Street, Ventnor, I. of W.
 Newman, F. 3, St. Thomas Street, Ryde
 Nuttall, J. White Hall, Kayeton Road, Bournemouth
 Parkin, A. B. 4, Bournemouth
 Purcell, R. B. 1, Newport, Isle of Wight
 Pader, R. G. 1, Avenue Chambers, Bournemouth
 Rake & Cogwell, Oldham Road, Portsea
 Raynold, E. E. & Son, Hants, Hants
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 St. A. 1, Englewood Office, L. & B. W.
 Stevens, T. St. James Chambers, Bournemouth
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 Stratton, W. T. 6, High St., Newport, I. of W.
 Stroud, J. W. 33, Lion Terrace, Portsea
 Tomkins, S. E. Sandown, Isle of Wight
 Wallis, R. S. Clidwell Road, Bournemouth
 Waterworth, W. W. Newport, Isle of Wight
 West, G. H. 1, Asham School Bournemouth
 Wheeler, W. 1, Walcot, Lodge Rd., Southampton

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 Kempton, F. R. 1, 2, Victoria Street, Hereford
 Nicholson, L. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

HEREFORDSHIRE.

Dulston, C. S. 1, Lyons Hall, Kingston
 Kempton, F. R. 1, 2, Victoria Street, Hereford
 Nicholson, L. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 69

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 Innes, H. A., 5, Birch Street, Acreington
 Keithwell, J., Grassington
 Lyle, W. A., 17, Cedar Street, Manchester
 Malmgren, E. J., 39, South King St., Manchester
 Mellers, J., Stand Lane, Radcliffe
 Mellers & Hamilton, Union Chambers, Bury
 Neward, J. A., 5, Lune Street, Preston
 Oshelmer, J. T. Jun., Municipal Offices, Dale
 Street, Liverpool
 Oshelmer, H., Exchange Station, Liverpool
 Parkland, Wood & Keef, 71, 3 John St., Liverpool
 Shuttleworth, T. H., Bridge End, Lathborough,
 near Manchester

Jackson, S. P. * Egypt Street, Warrington
 Simpson & Duckworth, Blackburn
 Simpson, A. W. R. Richmond Chrs., Blackburn
 [Simpson, J., 14, Acrefield St., Bolton
 South, Woodhouse & Willoughby, 200, King
 Street, Manchester
 South, F. & Brown Street, Manchester
 Smith, S. T. 110, King Street, Manchester
 Stodd & Adams, 19, Acrefield, Bolton
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 Gough, T., Grove Villa, Kington, Radnor
 Gwynne, R., Maunio Chambers, Bangor
 Gunnor, M. J., Salisbury Park, Wrexham
 Halley, G. E., 16, High Street, Cardiff
 Harley, J., 10, Bridgend Road, Bridgend
 Jacobs & Pickwell, 45, St. Mary Street, Cardiff

Jenkins, D., Gonsal, Llandaf, South Wales
 Jones, E. W., 2, Water Place, Swansea
 Jones, G., Northgate Street, Aberystwyth
 Jones, H., Tanybryn, Dolgelly
 Jones, J. P., 25, Park Street, Cardiff
 Jones, S. & Queen Street, Neath
 Kennedy, H., Bangor
 Ladd, H. W., 54, Princes Place, Pembroke
 Leach, G. F., Town Hall, Bridgend
 Lloyd, J., 149, Wood Road, Pontypridd
 Lush, J. E., 20, Chester Street, Wrexham
 Martin, T. P., Swansea
 Morgan, G., 20, King Street, Carmarthen
 Morrison, J., 20, King Street, Wrexham
 Mumford, J. P., Llanym, near Carmarthen
 Nelson, B., Grosvenor Lodge, Llandaf
 Powell & Newman
 Powell & Grant, Llandaf, Neath
 Price, P., 21, High Street, Cardiff
 Rees, J., Alford Road, Penarth, nr. Pontypridd
 Reynolds, T. F., Haverfordwest
 Richards & Gittum, Tower Chambers, 10 Church Street, Cardiff

Richards, R. T., Rock House, Treforest, near Pontypridd
 Richardson, G. C., * Argoed Hall, Llaneglo
 Roberts, O. M., 14, Bank Place, Portmadoc
 Roberts, T., Portmadoc
 Seward & Thomas, Queen's Chambers, Cardiff
 Taylor, C., 23, Duke Street, Cardiff
 Thomas, D. E., Haverfordwest
 Thomas, J. M., Rock House, Narberth, S. Wales
 Thomas, G. C., 23, Castle Square, Carmarthen
 Thomas, R. Y., Menai Bridge
 Thompson, T. W., A. Cararvon
 Turner, E., Harlewood House, Llandaf
 Vaughan, I. M., 9, New Road, Bridgend
 Cardiff
 Wakefield, T. C., 30, Gledhill Street, Merthyr Tydfil
 Waring, T. & Son, Cardiff
 Williams, R., Post Office Chambers, Barry Park
 Williams, K. L., Park Lane, Denbigh
 Williams, S. W., 4, Eglwys, Llanidloes
 Wilson, J. B., 15, Castle Street, Swansea

5—Abroad.

AFRICA.

Alexander, G. M., J. Cape of Good Hope Bank
 Chambers, Cape Colony
 Alexander, J. W., P.O. Box 269, Groenwater
 Chas. Johannesburg, S. African Republic
 Cannan, F. L., D. Box 135, Johannesburg, S. African Republic
 Dickson, G. A. H., 3, Richmond Chambers, Johannesburg, S. African Republic
 Davidson, P. M., J. Salisbury Park, Wrexham
 Gordon, H. T., P.O. Box 269, Johannesburg, S. African Republic
 Greaves, H. S., J. Cape Town, Cape Colony
 Hader, A. H., J. 100 Messrs Cohen & Graumann, Johannesburg, S. African Republic
 Knox, E. B., J., P.O. Box 398, Johannesburg, S. African Republic
 Kesteven, G., 41, St. George's Street, Cape Town, Cape Colony
 Red, A. H., P.O. Box 318, Johannesburg, S. African Republic
 Stent, S. & 29, Barnard Buildings, Kimberley, S. Africa
 Wilson, W. S., Post Office, Durban, Natal, Cape Colony

ASIA AND AUSTRALASIA

Addenbrooke, J. S., R. E. Office, Colombo, Ceylon
 Ahmad, J. S. D., 12, Khairat Lane, Bombay
 Adams, A., J. Wagon, New Zealand
 Barnett, J., J. Colonial Architect, Sydney
 Basson, H. E., Department of Public Works, Melbourne
 Bayer, E. H., Adelaide
 Bayne, R., R. E. Office
 Baile, E. C. H., 2001 Saliman, Esq., 373, George Street, Sydney
 Burwell, F. W., 108, Collins Street West, Melbourne
 Campbell, J. J., 29, Elphinstone Circle, Bombay
 Carver, M. F., Adelaide
 Chisholm, R. F., Baroda, India
 Clute, F. G., J. Wellington, New Zealand
 Cohen, J. B., Department of Public Works, Spring Gardens, Melbourne
 Coender, J. J. 13, Rishi Koya, Cho Tokon, Japan
 Cory, J. M., Shanghai
 Dawkins, W., Shanghai
 Dugley, W. A., * Emerson Street, Napier, Hawke Bay, New Zealand
 Darrell, G. W., 13, Tatnell's Chambers, corner of Hunter and Castlereagh Streets, Sydney

Ellerker, W. H., 14, Market Buildings, Collins Street West, Melbourne
 Ellis, J. S. E., J. Equitable Chambers, corner of Pitt and Park Streets, Sydney
 England, R. W., J. Inglis's Buildings, Christchurch, New Zealand
 Fox, M. H., * Burnham
 Gossling, D. J. * Sydney
 Graham, P. M., J. The Bond, Shanghai
 Gwyther, W. B., * Public Works Department, Bengal Secretariat, Calcutta
 Hamilton, R. M., 13, Latimer Square, Christchurch, New Zealand
 Hancock, W. St. J., 3, Beaconsfield Arcade, Hong Kong
 Hancock, W. F., * South British Chambers, Auckland, New Zealand
 Henry, T., * Modern Chambers, Collins Street West, Melbourne
 Herapath, P., J. Auckland, New Zealand
 Inskip, G. C., J. Collins Street East, Melbourne
 Jennings, N. E., J. Town Hall, Melbourne
 Jones, W. H., *
 Johnson, A. E., 115, Market Bldg., Melbourne
 Kerr, P., Dept. of Public Works, Melbourne
 Maddison, J. C., J. Herford Street, Christchurch, New Zealand
 Mansfield, G. A., J. 231, Pitt Street, Sydney
 Marks, F. W., * San Remo, Roslyn Street, Elizabeth Bay, Sydney
 Martin, E. J., * Colaba
 Mouchous, P., * Queen Anne Chambers, Bond Street, Sydney
 Norman, M. C., J. Government Offices, Bombay
 Norman, A. C., * Selling, Straits Settlements
 Osden, P., 2, St. James's Buildings, William Street, Melbourne
 Oskaslovi, G. J., 133 Victoria Street, Darlinghurst, Sydney
 Palmer, C., Hong Kong
 Povey, G. T., * New Western Australia
 Ross, B. J., * Tynley Court, King St., Sydney
 Rowe, T., * Victoria Chambers, Pitt St., Sydney
 Salway, W., 45, Swanton Street, Melbourne
 Seager, S. H., * Christchurch, New Zealand
 Sells, P., * Calcutta
 Smart, A. C., * New, Melbourne
 Stanley, E. D., J. 13, St. Stephens
 Stevens, W., 140, J. Griffiths, Esq. School of Art Residence, Bombay
 Sroufe, P., * Wakefield Road, Christchurch, New Zealand
 Schuman, J., 379, George Street, Sydney
 Taylor, L., 57, Chancery Lane, Melbourne
 Tomalin, H. F., * Public Works Dept., Colombo

Townard, C. J., J. Wellington, New Zealand
 Turnbull, T., J. Wellington, New Zealand
 Varson, W. L., J. Bank Chambers, 259, George Street, Sydney
 Watts, H. G., 25, Queen Street, Auckland, New Zealand
 Walker, A. C., * 30, Barrack St., Robert Tassman
 Wardell, W. W., J. Bank Chambers, 259, George Street, Sydney
 Watson, G. W., J. Department of Public Works, Melbourne
 Wilson, A. B., * Queen St., Brisbane, Queensland

CANADA.

Gambler-Bousfield, R. W., 61, Adelaide Street, Toronto, Ontario
 Taylor, A. T., J. 43, St. Francis-Xavier Street, Montreal

FRANCE

Houston, E., 145, Rue de Préjans, Cannes

MALTA

Galizia, E. L., 64, Strada Vecchio, Pjazza Celm, Valletta

SOUTH AMERICA

Cosider, B. T., * F.C.C.A. Romero de Santa Fe, Argentina Republic
 Curry, J. H., * 200 Moore, Treacher, Terao & Co., Calle Libertad, entre C. Puerto y C. Saeta Fd. Romero de Santa Fe, Argentina Republic
 Martin, W. J., 45, Matanzas, Santiago, Chile

UNITED STATES OF AMERICA

Barr, C. B., 218 S. D. Barton, Esq., 430 Walnut Street, Philadelphia
 Barry, C. E., * The Arno Hotel, Washington
 Beaumont, G., 115, Dearborn Street, Chicago
 Coeheld, E. A., 23, North Spring Street, Los Angeles, California
 Gillespie, A., * Savannah, Georgia
 Parker, T. W., * Box 1008, Pasadena, Los Angeles, California
 Phillips, J. B., * Pioneer Buildings, 509, Larimer Street, Denver, Colorado
 Will, R. W., * 200 A. Page House, Esq., 57, Broadway, New York

WEST INDIES.

Bridges, E. J., R. E. Office, Upper Park Camp, Jamaica

ARCHITECTS NOT INCLUDED IN PREVIOUS LIST.

ADDRESS REGISTER OF CLIENTS AND OTHERS.

ADDRESS REGISTER OF CLIENTS AND OTHERS.

BUILDERS NOMINATED BY ARCHITECTS.

The Editor will be glad to receive the names and addresses of other leading Builders who should be included in this Register. All communications are regarded as confidential, and no guarantee is given respecting the position or qualification of any firm nominated.

About 1,100 Architects have furnished the names in this Register, and many Builders have received from two to twenty-five nominations each.

1. ENGLAND—(a) London and Suburbs. (b) Provinces. | 2. IRELAND. | 3. SCOTLAND.
4. WALES.

1.—ENGLAND.

(a) LONDON AND SUBURBS.

Adamson & Sons, Turnham Green, Chiswick S.W.
Adcock, W. J.
Ald, J., & Sons, Belvedere Road, S.E.
Albin & Pinner, 32a Queen's Gate Gardens, S.W.
Ales, J., & Sons, Palmerston Works, Kilburn
Anley, J., 27a, Dalston Lane, E.
Ansell, C., 14, Edward Street, York Road, Lambeth, S.E.
Arnes & Son, Atlas Works, Upper Richmond Road, Putney
Ashby, Bros., 6, Union Court, Old Broad Street, E.C.
Ashby & Horner, 8, Aldgate, E.
Atherton & Latta, 71, Clippit St., Poplar, E.
Bakem Bros., Shenston Street, Old Kent Road, S.E.
Bartolomew & Co., 11, Furtman Street, Portman Square, W.
Battley, R. G., 21, Old Kent Road
Bayne & Co., 44, Mulbank St., Westminster
Beale, G., Cambridge Heath Bridge, Hackney, E.
Beattie, R. P., 191, Victoria Street
Belham, Messrs., 155, Buckingham Palace Road, S.W.
Bird, S. G., 28a, Upper George Street, W.
Boyer, 2, Metal Exchange Buildings, E.C.
Boyer, T., Eagle Works, Hackney
Brad, G., Manor Street, Chelsea
Brew, W., & Son, 18, Silver Street (47 Old Street)
Brews, Sons, & Bloomfield, 103, Cannon Street, E.C.
Bull, Sons, & Co., 15, Cressat's Inn Strand
Bunning & Son, 1, Talford Place, Talford Road, Camberwell, S.E.
Burford & Son, 35, High Street, Hampstead
Burnan & Sons, De Laneu Works, Sharnstead Street, Kennington Park, S.E.
Bush & Sons, 6a, Ridgmont Street, W.
Buxill, C. J., 16, Dynham Road, Kilburn, N.W.
Bywaters, G. H. & A., 10, King Street, Covent Garden, W.
Candler & Son, 25a, Brixton Hill, S.W.
Carter, T. D., & Son, 81, Horseley Road, Westminster S.W.
Chamberlain Bros., Hamstead Heath
Clegg, J. T., Lupus Street, Finsbury
Chesnut & Sons, Crown Works, 15, Swan Street, Haggerston

Clark, H. L., 15, Harrington Grove, Hornsey, E.
Clarke & Bracey, 64, Coleman Street, E.C.
Clarke & Mannock, 6, Great Castle St., W.
Clemmie, J., 9, Duke Street, Adelphi
Cock, E., 137, Wandour Street
Coleman, J. R., 120, High Street, Poplar, E.
Collis & Sons, 53, Moorgate Street, E.C.
Corder, E., Baltic Wharf, Kingsland Rd., N.
Co-operative Builders, Limited, Barton Road, Brixton S.W.
Consett Bros., Bonwell Street, E.
Cook, A., Ash Grove, Mare St., Hackney, N.E.
Crooks, O., 18, Montpelier Street, Brompton, S.W.
Croker, W. & F., Great Dover Street, S.E.
Crosser, A., 9, Great Sutton Street, E.C.
Cubitt, W. & Co., 258, Grays Inn Road, W.C.
Carliss, W. & E., 42, Carzon Street, Mayfair
Deaving, C., 64, Halford Street
Deane H. W., Hendon
Downs, W., Hampton Street, Walworth Road, S.E.
Dawson & Sons, 13, Devonshire Terrace, Notting Hill
Dave Bros., 15, Stodd Street, Islington
Dew, Cadman, 245 and 246, High Holborn, W.C.
Dunn, S. & S., 31, Brewer Street, Golden Square, W.
Ellis & Co., 49, Leopold Lane, E.C.
Evans Bros., Leford Street, Peckham
Everard, Lucas Works, Lucas Road, E.
Foster & Delaney
Foxley F., 36, Leinster Terrace, Hyde Park
Garratt & Son, Hinton Road, Longbridge, S.E.
Gedry, M., 2, Wormwood Street, E.C.
Goddard, S., 43, Upper George Street
Good, W. V., 241, Camberwell Road, S.E.
Goodman, W., Hartman Works, Hartman Road, Holloway, N.
Gould & Brand, High St. Camden Town
Green, T. L., Eagle Street, Kilburn, W.C.
Green & Lee, Ambrose Road, Hackney, E.
Greenwood, J. & Co., 20, Arthur Street West, E.
Greenwood, J., Son, Malby St., Dockhead S.E.
Gregory & Co., Clapham Junction
Grover & Co., New North Road, N.
Glover, J. & Son, Wilson Works, Wilton Hall, Bedford & Co., Waterloo Bridge, S.E.

Hassell, Harrow Station
Harper, W., 83, Jubilee Street, Mile End.
Harris & Son, 255, Marylebone Road, N.W.
Harris & Wandrop, 16-14, Wallwood Street, Stordist Road, E.
Harrison & Spooner, 105, Cannon St., E.C.
Hart Bros., 16, St. Dover St., Boro', S.E.
Hartfield & Son, 33, King St., Golden Sq.
Haylock, T. W., 209, Henry Street, Finsbury
Hayward & Son, 88, Newgate Street, E.C.
Head, W. B. & Son, 138, High Street, Notting Hill, W.
Heale & Son, St. George's-in-East
Hearn & Co., 26, Craven Terrace, W.
Higgs F. & H. F., Leighborough Junction S.E.
Higgs & Hill, Crown Works South Lambeth, S.W.
Hill Bros., Smitham
Hobson, J. D., 7, Duke Street, Adelphi, W.C.
Holland & Hannet, 17, Duke Street, Bloomsbury, W.C.
Holland, J., Brunswick Road, Poplar, E.
Holliday & Greenwood, Longbridge Park, S.W.
Holloway Bros., Queen's Road, Battersea
Holloway, J., 7, Lavender Terr., Lavender Hill, S.W.
Holloway, H. L., Union Works, Church Street, Deptford, S.E.
Hoosking G. J., Upton Lane, Forest Gate, E.
Howe, G., 41, Wigmore Street, E.C.
Hunt, J. R., St. Paul's Works, Bow Con. E.
Hunt, S., Burlington Road, Chelsea
Jackson & Todd, 194, Hackney Road, E.
Jerrard, S. J., 40, Lonsdale Vale, Lewisham, S.E.
Johnson, J. H., 785, Commercial Road, E.
Johnson, J., 131, Narrow Street, Limehouse, E.
Johns, W., Wandsworth Common, S.W.
Kenley, C. F., Bath Place, Kensington
Kessard Bros., Lewisham, S.E.
Kears, Head & Co., 6, Gray Street, Manchester Square
Kilby & Gayford, 87, Worship Street, E.C.
King & Son, 3, Vauxhall Bridge Road, S.W.
Kinnamool & Son, 26, Chiswick Street, Finsbury
Kirk & Randall, Warren Lane, Woolwich
Kynock, C., 59, High Street, Clapham
Lynn & Son, Duke Street, W.C.

ENGLAND.]

BUILDERS NOMINATED BY ARCHITECTS.

Lamble, S. R., 16, Rhyll St., Kentish Town
Langdale, Hallett & Co, 138, Brompton
Road
Lascells, W. H. & Co, 121, Bushill Row,
E.C.
Lalby Bros., Battersea
Lawrence & Sons, 14 & 16, Wharf Road,
City Road, N.
Lea, H. & E., 1 & 4, Warwick Street,
Regent Street, W.
Leeks & Hooker Webster Row, Blackfriars
Road
Longmire & Co., 30, East Street, Man-
chester Square
Lorden, Trinity Road, Upper Tooting S.W.
Linn, G., 2, Mellich Street, Millwall E.
Little, T., Size Yard, 22a, Whitechapel
Road, E.
Longmire & Co., Ozonburgh Street, Regent's
Park, N.W.
Lusk & Son, Kensington Square
Lucas, Bros., 39, Great George Street,
Westminster, S.W.
Macey, J. M. & Sons, 268, Strand, W.C.
Mades & Harper, Cherry Orchard Road,
Croydon
Mansfield & Son, 150, Upper Thames St.,
E.C.
Mark, F., 35, Bell St., Edgware Road, W.
Marshall, J., 1, York Street, Wulworth
Marins, J., Warwick Place, Maiden Vale, W.
Martin, Wells & Co., 58, Beckington
Palace Road, S.W.
Mashall, R., 189, New North Road, N.
Mattock Bros., Isledon Works, Finsbury Pl.
Maxwell Bros., 310, Drixton Road, S.W.
Mitchell, W. J., Dulwich, S.E.
Morris & Sons, Park Lane, W.
Moster, J., Forest Lane, Stratford
Mowlem & Co., Grosvenor Wharf, Millbank
S.E.
Nightingale, B. E., Albert Works, Albert
Embankment, S.E.
Nuthall, G., 107, Gray's Inn Road
Nye, T., Ealing Green
Oldrey, W. & Co., Carlton Bridge, West-
bourne Park, W.
Outwaite & Son, 34, Upper East Smith-
field, E.
Parke, G., 124, Sunner Road, Peckham
Parkinson & Son, 29, Southampton Row
Parsons, E., High Street, Wandsworth
Parsons & Petheringham, 100 & 102, Theo-
bald's Road, W.C.
Patrick & Son, 25, Westminster Bridge Rd
Perkins, R., 154, Gt. Titchfield Street, W.

Perrin, W., 27, Deerbrook Road, Herne
Hill, S.E.
Perry & Co., Tradegear Works, Ordliff Road,
Bow E.
Peto Bros., 29, Gillingham St., Pinlicko, S.W.
Phillips, W. & Son, 10, Baker Street, W.
Phillips & Son, 37, Crown Terrace, W.
Potter, G., 58, Redward Road, Clapton, E.
Prestige & Co., Cambridge Wharf, Gros-
venor Road, Pinlicko
Prior, W. A., Mowbray Road, Brandesbury,
N.W.
Pritchard, J., & Son, 161, Bishopsgate
Street Without
Quattemain, W. H., 40, Old Broad Street,
E.C.
Rhodes, 12, Gt. Cumberland Place, W.
Richardson, J. O., Albert Rd., Peckham, S.E.
Riddall, J., 154, High Street, Poplar, E.
Rider, T., & Son, 181, Union Street, S.E.
Roberts, L. H. & R., 34, Rhinoid Terrace,
Islington, N.
Robertson, I. S., 141, Edgware Road
Roome, E. A., 112, Clarence Road, Lower
Clapton, E.
Rowe, W., Lansdowne Road, Clapham
Salt, S., 40, Turner's Road, Limehouse, E.
Sargeant, J. F., 4, Tudor Road, Hackney E.
Sawyer, J. W., 37, Clapham Park Road
Scott, A., 22, South Molton Street, W.
Scrivener & Co., S., Fitzroy Road, Regent's
Park, N.W.
Scratch, W. A., 22, Gower Place, W.C.
Selby, T. H., 103, Mare St., Hackney N.E.
Sharpe, C., 71, Malmesbury Road, Bow, E.
Shaw, C., 20, King Edward Street, E.C.
Shaw, G., 2, Wigmore Street, W.
Shepherd, W., 101, Bernandsey New Road
Shurmer, W., Prospect House, Lower
Clapton, E.
Simpson, J., & Son, 48, Fiddington St., S.W.
Slaughter & Son, 10, Sloane Street, S.W.
Smith & Co., 39, South Street, Grosvenor
Square, W.
Smith E. J., Rydal Road, Streatham, S.W.
Smith W. E., 50, Church Street, Camberwell
Somerford, H., & Son, 138, Manor Street,
Clapham S.W.
Spencer & Co., 32, Commercial Road, S.
Spicer, J., 48, Newwood Rd., Dulwich, S.
Stinson & Co., 78, Brompton Road, S.W.
Staines & Son, 61, Gt. Eastern Street, E.C.
Starkie, Gardner & Co., Albert Embank-
ment, S.E.
Steer, A., Marlborough Mansions, Victoria
Street

Stephens, H. G., Little Heath, Charlton,
S.E.
Stevens, Barnston & Co., 195, Stewart's
Road, Wandsworth
Sevens, T., 45, South Molton Street
Tarrant, F., 20 & 22, Sayer Street, S.E.
Tate & Sons, Gloucester Road, W.
Taverner & Son, 8, St. John's Wood
Terrace, N.W.
Tennant, Isaac, Willemsden, N.W.
Thurmer, W., Riverside Works, Upper
Clapton
Titmas & Sons, Grafton Street East, Totten-
ham Court Road
Tissot, A., 114, Terrot St., Bromley E.
Tinson, E., 6, Shaftesbury Terrace, Ken-
sington, W.
Toms, E., Gloucester Works, Wellington St
Treasure and Son, 75, Gladstone Avenue,
North Park, Wood Green
Triggs, E., The Chase, Clapham, S.W.
Trotter, G. & Sons, Belgrave Works, 77,
Grosvenor Road, S.W.
Tutthill & Sons, 8, Northumberland Alley,
Fenchurch Street, E.C.
Turtle & Appleton, 141, St. John's Hall,
Wandsworth, S.W.
Tyerman, J., 220, Wulworth Road, S.E.
Vernall & Griffiths, 13, Albany St., N.W.
Wall, C., Ashburham Works, Lot's Road,
S.W.
Wall Bros., Carlow Works, Carlton Road,
Kentish Town, N.W.
Walker, J., Crown Works, Gough Street,
Poplar, E.
Ward & Lambie, 2, Hornsey Street, Hollis-
way Road, N.
Watson, Bros., 5 & 6, Charlotte Street,
Portland Place, W.
Weir, W., 58, South Audley Street, W.
Wells, M., 2 Co., Acra Wharf, Echnere
Road, Lambeth
Wells & Son, 49, Red Lion Street, Holborn
Wells, B., 2, Riley Street, Brompton
Willet, W., South Kensington
Williams, G. S., & Sons, Richmond Street,
Theobald Square, Islington, N.
Williams, J., 6, Harrington Square, N.W.
Wilkes, H. J., & Co., 105, Beckingham
Palace Road, S.W.
Wilkinson, B., 139, Church St., Paddington
Windrop & Sons, 103, Paul St., Finsbury
Wood, F. & F., J., 64, Cleveland Street,
Mile End, E.
Woodward & Co., 13, Wilson Street, Fins-
bury, E.C.

NAMES AND ADDRESSES OF ADDITIONAL BUILDERS IN LONDON AND SUBURBS.

(b) PROVINCES.

BEDFORDSHIRE.

BEDFORD.

Corby, J. & Son, Tavistock Street
Coleman, T. H., 27, Foster Hill Road
Foster, S., Kempston near Bedford
Freshwater & Sons, Castle Lane
Haynes, W., Priory Street
Harrison, G., Rutland Road
Loughton, T., Midland Road
Spencer, T., Aashburnham Road
Whitman, J., Cardington Road
White, J. F., Hassett Street

BIGGLESWADE

Dauby Bros., Hitchin Street
Teshyngton, E., Stratton Street

LEIGHTON BUZZARD.

Cook, D., Ashwell Street
Cook, J., & Son
Edwards, H., Egginton
Garside, G., Mockliffe Street
Turrell, T., Linslade

LUTON.

Dunham, W. G., Guildford Street
Dunham, W. & Son, Langley Street
Ford, R., Boyle Street
Neville Bros., Castle Street
Parkins, D., High Town Road
Pryer, G., Cardif Grove
Smart, G., Guildford Street
Wright, C., Hubbert Street

POTTON.

Peters & Rainsford

SHEFFORD.

Wheatley, G.

WOBURN.

Grogery, H.

BERKSHIRE.

ASCOT.

Watson, W.

ARDORFIELD.

Garratt, A.

CLEWER.

Green, W., Bell Terrace

CROWTHORNE.

Spear & King

FARINGDON.

Koches, J.

HUNGERFORD.

Hoskings, H.

MAIDENHEAD.

Stor & Son
Woodbridge, W.

NEWBURY.

Elliot, S., Albert Steam Works

READING.

Bottrell, J. & Son, Kine Road
Collier & Catley, The Butts
East, S., Zinzan Street
Higgs, M. F. & Sons, Queen's Road
Lewis, J. & G., Castle Street
Searle, G., King's Road
Simonds, W. H., South Street
Strong Bros., St. Mary's Butts
Wheeler Bros., Caversham Road
Whiting, T. F., The Grove
Wister & Pitt, London Road

STEATLEY.

Smallhouse, W.

SUNNINGDALE.

Norris, J. & Sons

WINDSOR.

Abery, F., Dagmar Road
Hann
Hollis, J. L., Victoria Street
Kelly, E. W., Alma Road
Pulker, G., Temple Road
Reavell, W. F., Peasod Street
Wallis, J., Frances Road

WANTAGE.

Wheeler, J.

WINKFIELD.

Searle, E.

WOKINGHAM.

Buckle, A., Station Road

BUCKINGHAMSHIRE.

AMERSHAM.

Darlington, High Street

AYLESBURY.

Hall & Mayne, Buckingham Road
Cooper, W.
Green, W., Walton Street
Green, G., Old Wagon Yard Saw Mills
Grost, S., Station Street
Webster & Casson, Buckingham Street

BUCKINGHAM.

Marshall, J.
Tibbitts, J. K.

CHESHAM.

Boughton, W., Red Lion Street
Mead, A., Berkhamsstead Road

DATCHET.

Pearce, J. H.

ETON.

Goddard, W. & Son, High Street

GREAT MARLOW.

Carter, J. S., Chapel Street
Lovel, Y. J., High Street
Walker, A., Oxford Road

NEWPORT PAGNELL.

Wilford, B.

STONY STRATFORD.

Hailey, J.
Walker, W., Wolverton St. Mary

SLOUGH.

Crowhurst, Uxbridge Road
Davenport, High Street

HIGH WYCOMBE.

Flint & Maddisford, Fawcett Street
Gibson, G. H., Oxford Road
Herring, R., 48, Easton Street
Hill, C. J., Station Works
Ivimey, J., Oxford Road
Lonsley, W. B., 121 & 123, Oxford Street
Nash & Sons, Temple End
Purce, G. C., Highenden Road
Purce, W. E., Highenden Road
Stevens, J., Crenson Street

WEST WYCOMBE.

Harris, H., Bantlers End

CAMBRIDGESHIRE.

CAMBRIDGE.

Atack, B., King Street
Bell, W. & Sons, Castle Street
Sudall, W., Mill Lane
Rattee & Kell, Station Road
Redding & Son, Tennis Court Road
Seymour & Sons, St. Andrew's Street
Salist, W., Mill Road
Tindley, F. & Son, Fills Road
Turner, H., Emmanuel Road
Wilmott & Sons, Mill Road

ELM.

Wilkinson, J. W.

ELY.

Holmes, T.
Morris, G., West End

GOREFIELD, near WISBECH.

Ilpwell, S.

NEWMARKET.

Elyth, R., Park Lane
Hunt, R., Park Lane
Linsell, H. J., Park Lane
Simpson & Son, Exning Road

SCHAM.

Cowell, J. & Son
Hook & Tibbitt

UPWELL, near WISBECH.

Elworthy, C.

WISBECH.

Farrow, H., Victoria Road
Girling Bros., Elm Road
Hotson, J. T., The Lamb Inn
Rands & Son, Elm Road
Sydell, G., 101, Norwich Road

BUILDERS NOMINATED BY ARCHITECTS.

CHESHIRE.

ALTRINCHAM.

Douglas, J. H., Hale Road
Hamilton, J., Hale Road
Lambert, M., Stamford Street
Lambert, W., Hale Road
Stones, M., Greenwood Street

ALDERLEY EDGE.

Massey, I. & Sons, Alderley Edge

ASHTON, near CHESTER.

Shellock, T.

BARROW.

Davies, T., Barrow, near Chester.

BEBINGTON.

Leatham, R., Bebington Road, New Ferry

BIRKENHEAD.

Arthur, D., Duke Street
Bleakley, A. & Sons, 43, Cloughton Road
Curwall, T. W., Whitford Road
Davies, R., 424, Borough Road
Davies, J. W., Oxton
Forde, W. H., Cloughton Road
Harrison & Son, Beckwith Street
Hughes, B. H., Hamilton Lane
Legge, E. & Son, Grange Road
Morrin, I., 10, Wilbraham Street
Ritchie, R., Grange Road, West
Shaw, J. G., 11, Priory Street
Snape, G., Trinity Street
Thomas, J., William Street, Oxton
Walker, J. W., Hamilton Lane

BOWDON.

Hamilton, J., Hall Road
Lambert, W., Hall Road
Ormsen, H., Stamford Road
Pennington, J., Stamford Road

CHESTER.

Andrews, W., Queen Street, Grosvenor Road
Brown, T., Tower Wharf, Canal Side
Dutton, W., Park Street
Forester, G., Boughton
Freeman, W. W., George Street
Hughes, T., Cow Lane Bridge
Jones, J., Charlotte Street
Mayer, J., Canal Side
Morris, G., King Street
Parker, Bros., Handbridge, Chester
Parrott, W., Egerton Street
Verdon, W., Upper Northgate Street

CREWE.

Cotton, A. P., Stanwich Road
Lee, T., Bech Street
Mickewright & Wright, John Street

DODLESTON, near CHESTER.

Edwards

DUKINFIELD.

Gibson, J.

EGGLESTON, near CHESTER.

Parker Bros.

HALE.

Fox, A. F., Spring Road
Simmons, J., Spring Road

HARTFORD, near NORTHWICH.

Beckett, R.

525

HOYLAKE

Smith Bros

HYDE, near MANCHESTER.

Swaile, J., Russell Street Iron Works
Robinson, S. & Son

KELSALL, near CHESTER

Crank, A. C.
Fleet, H.
Rathbone, S.
Roberts, G.
White, G. & H.

LITTON, STOCKPORT.

Hill, A.

NANTWICH.

Latham, F.

NESTON

Burkey, W., Little Nesson Village

NORTHWICH.

Leicester, T., Watton Street
Molyneux, W., Watton Street

FOLFORD, near CHESTER.

Edwards, P.

ROCK FERRY.

Richards, J., 57, Grove Road

RUNGORN.

Farrell, W. & Sons, South Bank
Kirkham, J., Greenway Road
Wain, H., Stanley Villas
Wilson, J., Greenway Meadows

SANDBACH.

Stringer, J.

STALYBRIDGE.

Garside, Barnes & Co., Knowl Street
Grayson, J., Knowl Street
Lockwood & Son, Castle Hill Saw Mills
Saxon Bros., Mottram Road
Shaw, T. G., Acres Lane
Stiers, W., Sons & Co., Limited, Aqueduct Saw Mills

STOCKPORT.

Brown, W. H. & C., Wellington Road, South
Broadhurst, J., Shaw Heath
Briggs, Lancashire Hill
Lomas, H., Mile End

TARPOLEY, near CHESTER.

Reaco Bros

TAWIN, near CHESTER.

Langford, T.

TIMPERLEY.

Cross & Bell, Stockport Road

TRANMERE

George, W., 7, Fountain Street

WEST KIRBY.

Getley, T., 4, Acacia Grove

WHALEY BRIDGE.

Collier, J., & Sons
Drinkwater, D.
Oakes, F.
Proctor, J., Jaur.

WHITLEY, near NORTHWICH.

Houghton, J.

WILMSLOW.

Cates, J. K., Manchester Road

CORNWALL.

ALBASTON, GUNNISLAKE.

Roseally, J.

BODMIN

Bescombe, W. H., Fore Street
Gross, R., Town End
Rogers & Son, Fore Street
Sanley, N., Castle Street

BUDE.

Crutchett, J., Bay Tree, Stratton

CAMBORNE.

Dellbridge, A., Teldy Road
Mills & Son, Treloarren Street
Nettle, R. D., Chapel Street
Williams, E.

CARNBREA.

Roberts, Jno., R.S.O.

CHACEWATER

Moyle, Messrs.

FALMOUTH.

Kelway, J.
Oliver, R. S. & Sons, Green Bank
Slamner, A., Swaapool Street

HAYLE.

Richards, J.

HELSTON.

Eva, O.
Eva, R.
Winn, W. J., Parkhouse Villa

LAUNCESTON.

Langman, T.

LANLWERY.

Rouse, F. W., Padble, Lanlweary, Lest-
wihid

LISKEARD.

Gill, T. J., Dean Street
Goffey, J. C.
Lang, T. & Sons
Tremane, S., Fore Street

LOSTWITHIEL.

Hassett, J., Parade
Brown, H. T., North Street

MARAZION.

Miners, G.
Rowe, W. G., Camote Villa, Fore Street

MOUSEHOLE.

Rowe, J.
Tregenza, J.

NEWLYN, near PENZANCE.

James, S.
Watts, J.

PENRYN.

Powell, G. G., Commercial Road

PENZANCE.

Carr, H., Mowat Place
 Hill, R., Rednick
 Hoskins, John and Thomas, East Street
 Inch, W., St. James Terrace
 Nicholls S., Belgrave Street
 Perkins and Caldwell, Victoria Square
 Trounson, W. H., Talver Road
 Trounson, J., St. Chapel Street

PRAZE, CAMBORNE.

Carr, & Edwards

REDRUTH.

Carlock, Arthur
 Carlock, Alfred
 Chagwiddow, S., West End
 Gray, W. H.
 Hoyle, J.
 Head, S.
 Nicholls, W., West End
 Nicholls, S. J., West End
 Tamblin, W. E.
 Wilboughby, T.

SANCREE, Near PENZANCE.

Hoskins, J., Drift

ST. AUSTELL.

Paul, J., Bodmin Road
 Smith, T. J., 34, Foen Street

ST. BURYAN, Near NYOMER.

Steg, J.

ST. IVES.

Tay, R., Bellair Terrace

ST. JUST, Near PENZANCE.

Mark, W.
 Roberts, R. H.

TRURO.

Clemens M., High Cross,
 Lacey, J., St. A. Hill Street
 Jan, J., Lemon Quay
 Dippet, W. J., Navy Arms, Faimantle
 Street
 Webb, W. H., Bodmin Street

TYWARDREATH, PAR STATION.

Mitchell, J., Hall House

WADEBRIDGE.

Williams, T.

CUMBERLAND.

CARLISLE.

Armstrong, W., Ferguson's Lane
 Batey, J. W., Uppicry
 Batey, W., Crescent
 Besty Bros., Devonshire Street
 Batey, J., Aglionby Street
 Bell, J., 11, Sheffield Street
 Black, G., Lorne Street (Carpenter and
 Joiner)
 Court, W., Court Street, (Carpenter and
 Joiner)
 Crighnam, T., Chapel Street
 Davidson, M. H., Corporation Road
 Hill, G., Aglionby Street
 Johnstone Bros., Denton Crescent, Mil-
 bourne Street
 Laing, J. & W., Newcastle Street
 Lawmer, Vincent
 Little, R., Norfolk Road
 Metcalfe, J., 84, London Road
 Mullen, J., 38, London Road

CLEATOR MOOR, etc. CARNFORTH.

Pearson, R. & D., Jack Trees Road

DISTINGTON.

Harrison, J., Main Street
 Hartley, J., Main Street

EGREMONT.

Smith, J., via Carnforth

EAMONT BRIDGE

Wilkinson, J.

HARRINGTON.

Simon, J., Quay
 Killip, H., Church Road

HESKET, Near CARLISLE.

Armstrong, I.

MARYPORT.

Kendal, J., Wood Street
 Lee, P., Lawson Street
 Mackenzie, A., North Street
 Marlow, J. H., North Quay
 Maudie, T., South Quay
 Smith & Marshall, Kirkby Street
 Whillans & Sons, Newbarn

MILMOM.

Bradley, W., via Carnforth

PENRITH.

Bell, J. & T. E., Brunswick Road
 Brown, J., Arthur Street
 Dixon, G., Elm Terrace
 Dixon, J., (Plumber, &c.) Sandgate,
 Grinsteadwaite, W., Lowther Street
 Hope, J., Executors of, Graham Street
 Jackson, J., Plumber, &c., Sandgate
 Richardson, J., & Son, Brunswick Road
 Richardson, J., Brunswick Road
 Scott, J. & W., Plumber, &c., Cornsey Place

PLUMPTON, Near PENRITH.

Lowthian, T., Plumpton

WETHERAL, Near CARLISLE.

Milburn, J.

WHITENAVEN.

Atkinson, D., to, Catherine Street
 Coates, R., Coach Road.
 Ghaizer, J. & R., Church Street
 Kitchen, H., Cockle
 McGill, A., School House Lane
 Young, J., Scotch Street

WORKINGTON.

Hodgson, R. & H.

DEVONSHIRE.

ASHBURNTON.

Stevens, H.

BARNSTAPLE.

Barwick, T., Fort Street (Mason)
 Burgess & Karisika, Vicarage Lane
 Cooke, W., Bear Street (Carpenter and
 Joiner)
 Garland, Bros., Mandlin Street
 Garland, W., Bampton Street
 Hazcock, J., Piton
 Hazcock, G., Joy Street (Mason, &c.)
 Permatier, J., Ashleigh Road
 Rew & Abbot, Barnstaple
 Silfiant, H., 40, Fort Street (Carpenter)
 Webber, G., Vicarage Lane (Mason &c.)

BIDEFORD.

Cock & Lamerton, Church Walk
 Ellis, E., Mill Street
 Gent, W. E., Chingwell Street

BUDLEIGH, EAST.

Palmer, W. J., Budleigh, Salterton

CREDITON.

Berry, W. B.
 Dart, W.

DARTMOUTH.

Hemley, E. J., Market Place
 Mainland, F., New Road
 Pillar & Sons, Newcomen Road
 Row, R., Market Place

DAWLISH.

Friend, S., High Street
 Lomacraft, J. H. G., Park Road

DEVONPORT.

Greenfield & Son, Chapel Street
 Jenkins & Son, Marlborough Street
 Lutchen, W., 44, Garden Street, Morice
 Town
 Piper, C. T. & W., 1 & 2, Stuart Terrace,
 Stoke

EXETER.

Bresley, W., 163, Cowick St., St. Thomas
 Cherley, J. C., 89, Summerland Street
 Crab & Greenfield, 67, Magdalen Road.
 Diggins, G. Jun., 6, Flanders Gate
 Diggins & Son, Exeter Quay
 Drake, S., Magdalen Road
 Forde, S., 25, Sidwell Street
 Gibbard, J. R., Old Tiverton Road
 Gibson, W., 6, Bonhay Road
 Gooding, W., 8, Sidney Road
 Gould, H., Moanmouth Street, Topham
 Grainger, W., Clist Hydron, near Exeter
 Ham & Passmore, Sidwell Street
 Harding, H., 12, North Bridge Terrace
 Hens, H., Longbrook Street
 Hitt, H., The Rink, Magdalen Road
 Kenahula, J., 4, Church Street, Heavitree
 Lacombe, E. & Son, 55, Sidwell Street
 Mills, H., 44, Pans Street
 Mills, E. J., 33, Bartholomew Street, E.
 Moore, S. & Son, 18, James Street
 Phillips, R., 100, Pans Street
 Poppen, J., 60, Pans Street
 Perian, J., Topham
 Pratt, N., St. Mary Clist
 Scudling, H. & Son, 29, Magdalen Street
 Setter Bros., 8, Okhampton Place, St
 Thomas

Sharland, J., 28, Bartholomew Street, W.
 Stephens, J. G. & Son, 116, Foe Street
 Stocker, J., 60, Cowick Street, St. Thomas
 Stile, G., 28, Summerland Street
 Steer Bros., Clist St. George
 Tree & Boley, Longbrook Street
 Viary, J. P. & Son, 29, Bartholomew Street
 Westcott, J., 27, Lower North Street
 Woodman, W., Bartholomew Street, E.
 Williams, F., Ottery St. Mary, near Exeter

EXMOUTH.

Bradbeer & Gaze, Manchester Street
 Cooper & Son, Beacon Place
 Hayman, A., Back Street
 Hooper, H. H., Clinton Cottage
 Hooper & Stock, Raleigh Terrace
 Long, H., Collaton Terrace
 Perry & Son, Albion Street

HONITON.

Derry W. D.,
Turner & Shuster

ILFRACOMBE.

Restment, W.
Bruton & Pickett
Brooks, Ilfracombe
Collins, R.
Coushner, W.
Dendle W.
Garnon & Tallyn
Labbett, J., Regent Place
Parkin, J.
Slee, A.
Upton, T.

KINGSWEAR.

Short James
Short, John

NEWTON ABBOT.

Barrow, F., Courtenay Park
Barnes, L., Hagberd Street
Dobell Bros., East Street
Mills, H., Queen Street
Parker Bros., Courtenay Street
Stacey, W., Lower St. Paul's Road
Stevens, C., Courtenay Street.

NORTHAM.

Chapple, L.
Cook, T.
Hoare & Glover, Cleavhouses

PAIGNTON.

Bridgeman, M., Garfield Works, Garfield
Terrain
Drew, C. & R. E., Steam Works, Dart-
mouth Road
King & Son, Winner Street
Raburch, H., Victoria House
Webber, H., Dartmouth Road

PLYMOUTH.

Herry, J. P., George Lane
Bicknell, J. H., Cambridge Lane, W.
Blowey, P., 2, Nottingham Place
Coles, A. N., 70, The Octagon
Deban, A. R., Mount Pleasant Building
Yard
Finch, J., 21, York Street
Foot 1, 40, Notts Street
Hans, W., Elm Road
Ham, J., 23, Portland Square
Hoskin, G., Lower Compton, near Ply-
mouth
Jahua, W. T., 3, Kirby Place
Laphors & Goad, Tracy Place
Leithbridge, A. R. & Son, 33 & 34, Tracy St.
Marshall, J., Siston Road
Marshall, A., Hoe Gate Street
May, T., 8, Cobourg Lane
Palk & Partridge, Cobourg Street
Pearns & Sons, G'well Street
Pethic Bros., Nersley Yard
Piper, F. J., Portland Place
Read, J., Eagle Works Coxside
Roberts, S., Ham Street
Shelbourn, G., 23, Washington Terrace,
M.ley
Taylor & Son, T. S., St. Mary Street, Stone-
house
Taylor, J., 15, Battery Street, Stonehouse
Tee & Son, Cromwell Road
Trevena, W., 14, Hastings Street
Wilcox, W. E., 21, Kensington Terrace
Malley

523

TIVERTON.

Batons, W., St. Peter Street

TORQUAY.

Bowey, E. P., Torwood Works, Torwood
Chubb, J., Ristow Works, Elacombe
Goss, W. A., Elacombe Works
McKellar, J., Warren Road
Pack Bros., Torre
Smerdon, J., Warren Road
Wyatt, S. D., Elacombe
Yeo, R., Warren Road

TOINES.

Brooke & Ash, Bridgetown
Reeves & Selwood, Fore Street
Tolitt, W. F., Seymour Villa

TORRINGTON (GREAT).

Grant, H., Potacres Street
Labbett, H., Castle Street (Borough).

DERBYSHIRE.

ASHBORNE.

Woolley, T., Huland Ward

ASHOVER.

Beardow, J. T.
Hopkinson, R.

BAKEWELL.

Norman, F

BARLOW.

Margeson, I.

BASLOW.

Hibbert, S.

BOLSOVER.

Haynes, G.

BRAMPTON.

Marsden, C.
Needham, W., Storrs Lane

BUXTON.

Begshaw, G. J., Market Street (Joiner)
Chadwin, J., Salisbury House
Cili, J.
Holmes, J., Eastbourne Terrace
Oakes, A. & E., Compton Road (Masons)
Selt, J., Devonshire Saw Mills

CHESTERFIELD.

Ellis, W., Lordsmill Street
Heathcote, J., Lordsmill Street
Margeson, L., Fairfield Road
Robinson, G., Saker Gain
Slack, G., Station Road
Wright, Amy, Mrs., Beetwell Street
Wright, J., Beetwell Street

CHAPEL EN-LE-FRITH.

Goddard, G., Chodley
Haddfield, G., Milton
Lowe, J.
Simpson, J., Chodley

CLAY CROSS.

Tinkler E., Thaxet Street

DERBY.

Brown, A., Great Northern Road
Dickenson, J., Ashbourne Road
Eatoo, W., Summer Hill

Ford & Co., Talbot Street
South, A., 7, Gordon Road, Mill Hill
Slater, F., Burton Road
Spencer, A. W., Traffic Street
Walker & Slater, Old Uttoxeter Road
Wood, E., Park Street
Wood, J., Liversage Street
Walkerdine, W., Bridge Street

DUFFIELD.

Hingley, A.

ECKINGTON.

Fidler, J., 8, Chesterfield Road

GLOSSOP.

Bowden, W. H., Howard Street
Charlesworth, J., Strenuous Street
Garnica, C., Surrey Street
Goddard, W., Whitfield

HAYFIELD.

Mason, E

ILKESTON.

Goddard, F., East Street
Harper, J., Orchard Street
Dreson, W., East Street
Manners, J., South Street
Shaw, F., Rutland Street
Wade, J., Bath Street

LANGWATH.

Collingham, J.

LONG EATON.

Brown, J., Waverley Street
Dight & Rose
Parks, F., Bridge Street
Taylor, C.
Youngman, G., South Street

MATLOCK.

Askew, W. B., Matlock Bridge
Bridge, A. B., Matlock Cliff
Statham, W.
Widdowson, L., Matlock Bank

NEW MILLS, near STOCKPORT.

Drinkwater, D., Whaley Bridge
Hudson, J. & Sons, Low Leighton
Hudson, J., Birch Vale
Simford, T., White

PILSFLEY.

Hall, W.

RIPLEY, near DERBY.

Clark, W.
Clocer, W.
Cresswell, J., Green Hillocks
Fletcher, J., Greenwick
Harris & Norman, Marehay

STANLEY.

Brown, R. F., Stanley Common

STAVELEY.

Stone, S.

SOUTH NORMANTON.

Weston, R., Saw Mills

WINKS WORTH.

Killer, J.
Knowles & Son, Brassington
Walker, J. & Sons, Bolehill
Waterfield, J.

DORSETSHIRE.

BLANDFORD.

Green, A. H.

DORCHESTER.

Davis & Son
Gay & Son
Tilley, L. & Son
Tilley, W. & Son
Wellman, T.
Wellspring, H.

EVERSHOT.

Conway, H.

FOOLE.

Gray, W. H., Market Street
Haring, D., Parkstone
Morris, W., Parkstone Road
Rigby, T., Longfoss
Wheeler, W., Longfoss

SWANAGE.

White, H. W., Mount Pleasant

SHAFTESBURY.

Reckell, F., Emorse Green
Dean, R.
Hiscock & Dean
Gibson, T.

THORNFORD, SHERBORNE.

Adams, J.

WAREHAM.

Beer, J., East Street
Churchill, C., South Street
Hobbs, G., East Street

WEYNMOUTH.

Bartlett, J. A., Franchise Street
Brown Bros., Great George Street
Clarke, A., Commercial Road
Jencks, J., Commercial Road
Purchase, J., Belvedere Cottage
Whitman, J., Grange Road

DURHAM.

BIRTLEY.

Burnet & Son

BISHOP AUCKLAND.

Blackett, W. & R., Station View
Vickers, J., Princess Street

BLAYDON-ON-TYNE.

Atkinson, M.

CROOK.

Lister, G., & Son

DARLINGTON.

Hepes, J., Church Street (Plasterer)
Kinchin, R., Chestnut House
Marshall, Gen., Wooler Street
Metcalfe, J., Tabular Row (Painter)
McKenzie Bros., Duke Street
Newshaw & Walker, Westmoreland Street
Robinson, J., Leadenhall Street
Smith, R., Sharncliffe (Plumber)
Smith, R. T., Four Rugs (Joiner)
Wandless, J., Kinnors Street (Slater)

DIPTON.

Mordue, T., Dipton, Lintz Green

DURHAM.

Bell & Sanderson, Caxhoe, Co Durham
Caldough, F., Elvet, Water-side
Coates, T., Claypath
Forster, W., Croadale
Gilson, F., North Road
Graddon, G. & Son, North Road
Kell, J., North Road
Lewie, J. & Son, Gilegate
Moody, Thos., Gilegate (Wood Carver)
Mowbray Bros., Gilegate (Wood Carvers)
Sanderson, R., Gilegate
Taylor, E. & J. R., 2, The Avenue
Watson, W., Hawthorn Terrace
Wardropper, C., Gilegate
Whalley, J., Gilegate

GATESHEAD.

Harwell & Waugh, Askew Road
Lamb, T. & R., Grahamsley Street
Pringle, A., St Edmunds Road
Tyrie & Graham, Redheugh Road

HARTLEPOOL (EAST).

Burn, J., Durham Street

HARTLEPOOL, WEST.

Bulmer, J., Mitchell Street
Carter, J., Thornton Street
Cockburn & Son, Ouston Street
Corry, H.
Hous, J., Grange Road
Moody, Barton, Freeman Street
Suggitt & Son, Archer Street
Watt, R., Mitchell Street

KIRKPATRICK-BY-DALBEATTIE.

O'Brien, R.
Roxburgh & P.

LINTZ GREEN.

Routledge, J., Anfield Place

STOCKTON-ON-TEES.

Atkinson, W. C., Wood Street
Atterby, J., Bridge Street
Clephan, E. E., Norton Road
Cooke, J., 54 Lawson Street
Craggs & Benson, Home Street
Davison, J., Spring Street
Fletcher, G., Prince Regent Street
Harland, J., Rosedale Lane
Henderson, W., South Stockton
Johnson & Hanby, South Stockton
Jones, H., Highfield
Leng, J. T., South Stockton
Perks, J., Wellington Street
Sanderson, J., Skippers Street
Smith, W., South Stockton
Thompson, J., Mill Street
Thompson, G., Station Terrace
Watson, W., Rutland Terrace

SUNDERLAND.

Armistead, J., Southwick
Cooper, W. B., Salisbury Street
Hodgson, G. A., Green Street
Hodson, R. Jun., St Mark's Road
Howarth, M., Enderdale
Hildrey, G. & F., Grange Road
Humble, C. T., 25, Crowther Road
Hudson, E., St Paul's Terrace
Hurdley, J., Abell Road
Rashley, D. & J., Stockton Road
Shafte, T. P., Borough Road
Scott W. & Son, Durham Road
Sharp, T., Black Tabernacle
Swan G. & Co., Roker Avenue, Monkwearmouth

Thompson, J. & Son, Borough Road
Young, J., Newcastle Road

SEATON CAREW.

Nodding & Elder, 1, Durham Street

SOUTH SHIELDS.

Christie, W., Commercial Road
Dobson, F. B., Chichester Road
Gillman, J. & W. John, Williamson Street
Goodwin R. & Son, Orange Street
Kennedy, W., 1, Edgar Street
Kilner Bros., Eldon Road
Lewes, D., Mile End Road
Lumsden, T., Albert Road, Jarrold
Marshall, A. & P., Claypath Lane
Moore, J., Alice Street
Nichol, J. C., Chichester Road
Scott W., Weslock Lane
Sherriff, S., South Frederick Street
Summerbell, R., Tyne Docks
Taylor, J., Albert Road, Jarrold
Wilm, W. & T., Kilburn Street
Wilson, W., Regent Street
Young, J., Tyne Docks

WASHINGTON.

Hosier, T.

WHITBURN.

Allison, R.

ESSEX.

BARKING.

Argent, D., North Street
Rat, G., Walsingham Road
Smith, J., East Street

BRAintree.

Brown, J., & Son
Letch, W.

CLACTON-ON-SEA.

Darnall, N., Church Road

CHELMSFORD.

Chant & Son
Johnson, F., New Street
Moss, J.
Potter H., Duke Street
Salisbury, G., Moorhouse

CHIPPING HILL, near WITRAM.

Smith, J.

COGGESHALL, near KELVEDON.

Gardner & Son

COLCHESTER.

Howles, G., Magdalen Street
Chambers, W. A., Magdalen Street
Ebbson, G., Bull Road
Diss, A., West Bergholt
Dupont, F., North Hill
Everett & Son, Hythe Hill
Gerrard, J., Northgate Works
O'Brien, C. E., North Street
Scott, C. J., North Hill
Shed, W., Berewich
Ward, T. J., St. John Street

DANBURY, near CHELMSFORD.

Baker, W.

DEBHAM.

Saunders & Son

EPPING
Whiffin, J., Theydon Garzon

GRAYS.
Carter, H. J.

HUTTON, near BRENTWOOD.
Crosa, J.

ILFORD.
Barrow, C., High Street
Watson, W., High Street

NEWPORT.
Staines, J. H.

ROMFORD.
Booth, H., High Street

SAFFRON WALDEN.
Bell W. & Sons

SOUTHEAD-ON-SEA.
Darbe & Son
Woodlams, F. E.

UPMINSTER.
Wilson, T. L.

WITHAM.
Gamble, J.

WALTHAM ABBEY.
Bentley, J., & Sons

WOODHAM WALTER, near CHELMSFORD.
Gossett, H.

GLoucestershire.

BRISTOL.

Bastow, J., Byron Place, Clifton
Brook, M. & Son, St. Philip's Marsh
Brook & Bruce, Albert Road, St. Phillips
Beaven, A. J., Dean Lane, Redminster
Beachey & Balcomb, Temple Backs
Charley & Sons, Bishopston
Church, W., Wapping
Cowlin, W. H. & Son, Stratton Street
Covell & Son, Milk Street
Davis, J. E., 27, Mapburn Road, Stoke Croft
Darnford, J. & Son, Bedminster
Eastbrook & Sons, Pennywell Road
Edwards, W., & Sons, Queen Charlotte Street
Finistmore, J. S., Park Row
Forse, H. A., Charles Street
Hayes, C. A., Bedminster
Harding & Vowles, Great George Street,
Park Street
Hartley, E. T., Stokes Croft
Humphreys, G., Woodborough St., Stapleton
Road
James, J., Stapleton Road
Krauss, A., 42, Colston Street
Lewis & Sons, Regent Place, Clifton
Lewis, T. R., Clifton Vale, Hotwells
Norris, R. C., Bath Bridge
Perkins, J., Lower Redland Road
Perrott, J., Wellington Road, St. Paul's
Robertson, S., Pennywell Road
Rozzter, H. J., Southville
Stephens, Bastow & Co., Clifton vi
Buildings
Turner, S., Mounton Street, Stapleton Road
Wallers, E., Montpelier
Watkins, J. & Son, 139, Ashley Road
Watkins, R. & Son, Surrey Street, St. Pauls

530

BRINSCOMBE, near STROUD.
Wall & Hook

CHALFORD, near STROUD.
Drew Bros

CHELTENHAM.
Baker, J., Winchcomb Street
Ballings, A. C. & S., 54, Winchcomb Street
Brown, H. D., St. Luke's Road
Channon, C. H., Montpelier Street
Channon, W. G., Chester Walk
Collins, T., Grosvenor Street
Eager, J., 10, Henrietta Street
Hunt, W. T. & R. A., Carlton Street
Price & Parker, 4, Pityville Street
Ranger, C., Bath Road
Ranger & Wilson, Bath Place
Scammell, W., St. George's Place

GLOUCESTER
Clutterback, J., George Street
Callis, F., Park Road
Collins & Posing, Ryecroft Street
Estcourt, A., Barton Street
Jones, W., Worcester Street
Jones, D. & Co., Cromwell Street
King, A., Barton Street
Peters, G., Southgate Street
Sims, J., London Road
Williams, W., Falkner Street
Wibby, W.
Wingate & Sons, Station Road

KEMPSTON, FAIRFORD S.O.
Bowley, J.

PRESTbury, near CHELTENHAM.
Davis Bros.

STROUD.
English & Sons, London Road
Grenallade, J., Bowbridge, near Stroud.
Lewis, J., Spillmans, near Stroud
Pitt, T. G., Ebley

TEWKESBURY.
Collins, T.

YATE, near CHIPPING SODBURY.
Hudson, J. B.

HAMPSHIRE.

ALDERSHOT.
Craston
Garland, W.
Sembright
Wells, M. & Co.

ALTON.
Dyer, J. H. & E., High Street

ANDOVER.
Annett, H. & Son
Bale, F.
Crace, C., Goodworth, Clatford
Spratt, A., Wherwell

BASINGSTOKE.
Garrard, R., Pottery Lane
Harris, J., 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

BITTERTON.
Chafen, A., Bitterton Park
Witt, J., Inkerman Road

BOURNEMOUTH.
Brown, S., Phoenix Works
Glast, T., Norwich Road
George & Harding, Landowne Road
Hearn, F. & Son, Jubilee Works
Hearn, W., Victoria Works, Holdenhurst
Road
Jenkins & Sons, Walverton Terrace
Jones, W., Westbourne
Lucas, J. W., Pools Road
Minty, S., Beaulieu Works
Miller & Sons, Landowne
McWilliam & Son, Wharf Road
Nethercost, J. A., Holdenhurst Road
Rolle, G. H., The Mart, Holdenhurst Road
Walden, F., Headington Works, Southcote
Road

COWES, I.W.
Ball, J. & Son
Cleaden, J., Jun.
Thomas & Son

FAREHAM.
Plummer, J.
FRESHWATER, I.W.
Denham, T., Norton Green

GOSPORT.
Cantle, J. A., Joseph Street, Newtown
Croad, J., High Street
Dash, C. M., Clarence Square
Hill, W. & Co., Bury Works, Anna Hill
Lane, W. E., Forton Road, Forton
Lear, C., Alverstoke
Lowe & Son, Gosport
Lowe, R., The Green
Ropley, W. & Son, Albert Street, Forton
Walton, W. H., Forton Road, Forton

HAVANT.
Pinker, Bros.
NEWPORT, I.W.
Bevis, J., High Street
Jenkins, T., 49, Upper St James Street
Way, W. C., Carlisle Road

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Bela, G. St. Thomas Street
Bela, J., 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874,

Light, W. R. & C., 445, Commercial Road,
Landport
Mathews, Brns., Hay Street, Portsea
Massey, C., Collingwood Road, W., Southern
Pittis, G., Fawcett Road, Southsea
Quirk, T. W., Victoria Road, N., Southern
Roberts, R. H., 82, Vincent Street
Searcy, S., Somers Road, Southern
Seamwell & Dowdell, 174, Wingfield Street
Ward, W., Colberg Street, Fratton
White, F., 341, Commercial Road, Landport
White, J., 2, All Saints Street, Landport
White, J. & Sons, Commercial Road, Land-
port

RYDE, L.W.

Barlow, I., High Street
Langdon, Messrs., Player Street
Newman, W., Anglesey Street

SANDOWN, L.W.

Colescott, F., Broad Lane
Hayden, J., Carter Road
Jelliffe, W., Fell Street
Young, A., Fell Street

SHANKLIN, L.W.

Cooper, F., Grange Road
Hayles, G., Atherly Road
White, J., Wilton Road

SOUTHAMPTON,

Bull, J. & Sons, Northam
Ball & Co., Belvedere Road
Barton, L. & Son, Beville Town
Brinton & Brier, Marsh Lane
Chapman, W. H., Woolston
Dyer, J. & Sons, Bevoes Hall
Franklin, W., Osborne Road, St. Denys
Holt, J., Waterloo Road
Hinton, J., Weston Grove Road, Woolston
Jukes, T. J., 101, Park Road, Freemantle
Morgan, Isid., & Morgan, Onslow Bridge
Works, Newtown

Nichols, J., Rickleton
Sanders, H. J., Northam
Stephens & Son
Stevens, H. & Co., Millbank Street
Udall, J. J., Carlton Place

VENTNOR, L.W.

Daish, A., Hope Cottage, Helgave Road
Harvey, J., Primrose Bank, Grove Road
Ingram, H. & Sons, Albert Street
Jolliffe & Sons, 5, Mill Street
Newham, J., 144, High Street
Sims, A., Trinity View
Walden, W. H., Madeira Road

WINCHESTER

Carter & Son, Eastgate Street
Coles, W., Kingsgate Street
Faulder, J. & Son, Westgate
Marsh, G., Talbot Road
Shearman, W., 12, Southgate Street

WINDFIELD,

Poole & Son, Hartley Row

HEREFORDSHIRE.

HEREFORD.

Andrews, R., Leabury Road
Dowers, W. & Co., Bath Street

Hodges, B., Edgar Street
Lewis, W. P. & Co., Commercial Road
Matthews, R., Victoria Street
Rowberry, J., Workhouse Lane

KINGTON.

Morgan, R.

LEOMINSTER.

Edwards, C., Mile Street

HERTFORDSHIRE.

BALDOCK.

Redhouse, S., Stoeiford

BENGELO.

Green, R.

BERNHAMSTEAD.

Young & Horne

BISHOP'S STORTFORD.

Cannon, F., Mockmill
Chambers, H., London Road
Glasscock, H., Rye Street
Glasscock & Son, Causeway

BROMYARD.

Lewis, R., Sherford Street
Rouse Bros.

BUSHEY.

Faith, J., Park Road
Pratt, B., High Street

HARPENDEN.

Dawson, T.

HEMEL HEMPSTEAD.

Horn, R., 35, Marlows
Nash, W., Marlows
Payne, J., Bury Mill End
Sear, W., 7, Marlows
Smith, S. C., 72, Flints End

HERTFORD.

Crouch, G., Talbot Street
Elkins & Son, St. Andrew's Street
Glen, R. & Son, St. Andrew's Street
Gray, W., Hertford Street
Noor, H., Railway Street
Raymont, J. J. & Son, Mandeham Street
Scates, A., Hertfordbury Road

HITCHIN.

Foster, M., Bancroft
French, C., Wimbush Lane
Foster (Mrs.) & Sons, Park Street
Jewes, W., Queen Street
Joyner, F., Bagin Lane
Seymour, W., Back Street
Stapleton, G., Radcliffe Road
Wilmot, T. & Sons, Statton Road

HODDESDON.

Nichols, J. W.

FUCK.. RIDGE, near WARE.

Cates, F.

RICKMANSWORTH.

Brown, Harefield
Darvill, J., Chipperfield

SAWBRIDGEWORTH.

Barton & Sons

TRING

Honour, J. & Son, Akenham Street

WATFORD.

Allen, C., 239, High Street
Allen, H., 42, High Street
Andrews & Sons, High Street
Clifford & Gough, Eastcourt Road
Dove, H. M., St. Albans Road
Hailey, C. A., King Street
Judge & Barnes, High Street
Longman, C., Smith Street
Lovsky, C., Smith Street (Stone Mason)
Neal, W. B., Aldenham Road
Tearle, W., Queen's Road (Stone Mason)
Turner & Co., Limited, St. Alban's Road
Waterman, G. & J., High Street

WARE

Copsey, J., Massey
Goodman, S., High Street
Hilton, F., Atwell End
Higgins, H., London Road
Hunt, T., Baldock Street

HUNTINGDONSHIRE.

BRAMPTON.

Allen, M.

BUCKEN.

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FENTINSTANTON, ST. IVES.

Bunting, A.

HUNTINGDON.

Howard, W.
Thackray & Son

ST. IVES.

Saint, J. & Sons

ST. NEOTS.

Osborne, W., Church Street
Wade, W.

KENT.

ASHFORD.

Faker, W., Park Road
Deyland, E.
Giles, Burden & Giles
Joy, E.
Knock, H.
Steady & Co.
Wood, J.

BECKENHAM

Graham, T., Church Hill
Kyd, R., Central Road
Rick, G. J., Bromley Road
Moss, A., High Street
Syme & Duncan, Blakeney Road

BELVEDERE.

Stickland & Chandler, Bexley Road

BEXLEY HEATH.

Butler, R. J., Main Road
Ellingham, J., Main Road

BIRCHINGTON.

Cousins, G., Station Road

BIRLING
Bishop, W. J., Birling Road

BOUGHTON, near MAIDSTONE.
Wood & Son

BROADSTAIRS.
May, J. T., 31, Albion Street

BROMLEY.
Arnard & Sons, High Street
Crosley, T., Tweedy Road
Payne, D., High Street
Sanford, H., Streamlet House

NEW BROMPTON.
Snow, W. C., Canterbury Street

CANTERBURY.
Gaskin, J. C., Castle Street
Gentry, W. & Son, Broad Street
Terry, T. & Son, St. Peter's Street
W. Lee, H. B., 21, St. George's Place
Walsham, J., Stour Street

CHATHAM.
Edgar & Bockham, Railway Street
Saxena, E. D., Brook
Skinner, C. E., Railway Street

DARTFORD.
Cumbrell, W., High Street
Keap, G., West Hill
Sharp & Sons, Hythe Street

DEAL.
Dence, G. H. & Son, Queen Street

DOVER.
Adcock, W. J., Ladywell
Austin & Lewis, Milton Dene Road
Stitt & Son

ERITH.
Miles, G., The Avenue

FAVERSHAM.
Davis, A. & Son, Union Street
Fuller, E. & Son, Stone Street
Hogbes, H., Park Road
Harrod, W., Park Road
Ingleton, A. S., Harrow Bay
Tadman, W., Boughton
Pettman, G. H., Broomington-on-Sea
Ratcliff, Bees, Belvedere Road
Strubbs, L., Abbey Street
Webb, C., Harrow Bay
Whiting, R. M. & H., Osprings

FARNINGHAM.
Everest & Marchant, Farmingham

FOLKESTONE.
Baker, D., Tontine Street
Brooks, W., Goldhill Street
Dunk, W., Tontine Street
Moody, H., Brockman Road
Potts & Son, Dover Road
Prebble, G., Grace Hill
Webster, R., Clarendon Road

GRAVESEND.
Ancher, W. H., The Grove
Gould, J., Perrock Street
Multon & Wallis, 2 and 3 Wrotham Road
Rayner, A. C., St. James Road
Teele, W., The Grove
Wallace, W. and E., Fulham Road

LEE.
Havell, 167, High Road

LITTLEBOURNE.
Belsey, H. J., Littlebourne, Wingham

LOOSE, near MAIDSTONE.
Wilkins, E

MAIDSTONE.
Averd, R., Tenbridge Road
Candler, G., Front Road
Clements, J., Mill Street
Eunice, T., King Street
Prayer, A. N. & Co., West Borough
Vaughan, E., Tenbridge Road
Walker, G. E. & Sons, County Road

MALLING (EAST.)
Allchis, W. H.
Yessman, W.

MALLING (WEST.)
Hodges, G.

MARGATE.
Adams, G. T., Addington Road
Brown & Sons, Clifton Street
Bushell & Sons, King Street
Gore, Bros., Addington Road
Parmer & Sons, Raton Road
Woodward, W. H., Zina Place

MILTON, near SITTINGBOURNE.
Beaumont, W. J.

PENSHURST.
Constable, H

PLUMSTEAD.
Messrs. Longman
Prestor, E., High Street, Plumstead

RANSNGATE.
Brewman, H., Cannon Road
Forwalk, J. H., Elms Villa, The Elms
Martin, W. W., Beechwood, Dune Park
Estate

ROCHESTER.
Bathurst, M., Five Bell Lane
Callust, T. & Son, Eastgate
Darby & Son, Rochester
Ford & Sons, Acorn Wharf
Gates, G., Fendebury
Naylor, J. G. & Son, Maidstone Road

SANDWICH.
Brisley, Ash, near Sandwich

SITTINGBOURNE.
Bishop, E., Albany Street
Pavey, G., West Street
Senger, L., Borden.

SNODLAND.
Langridge

ST. LAWRENCE.
Port, W. H., Ellington

ST. PETER S.
Barwick, J. E., Hopville Villas, St. Peter's.

SWANSCOMBE.
Hammersham and Russell, High Street

STROOD.
West, J., South Weston Road.
West, G., Canal Road
West, Bros., Caxton Road

TUNBRIDGE WELLS.
Beale, L., Front Road
Jarvis, J., Waldron House, Grove Hill Road
Marshfield, G. & Son, Petham House, Parade
Pearn, G. & F., Fambury, near Tunbridge Wells
Soper and Jones, Mount Pleasant Road
Strange & Son, 34, London Road

WATERINGBURY.
Dray, J. & Son

WALMER.
Dence, W. & T., Upper Walmer, Deal

WESTGATE.
Lockwood & Co., The Grove

WHITSTABLE.
Amos & Foad, Church Road
Cornelius, T

WOOLWICH.
Carter, G., Hill Street
Fenn, A., 53, Wood Street
Kirk & Randall, Warren Lane

WOODCHURCH, near ASHFORD.
Bourne, W. H.

LANCASHIRE.

ACCRINGTON.
Crichley, J. H., Newark Street
Cumlish & Son, Water Street
Dixon, W. H., Avenue Parade
Kuttill, R., Main Street
Parker, W., Manchester Road
Ramsbottom, Hamball, Devonshire Street
Waddington, H., Blackburn Road

AIGBURTH, near LIVERPOOL.
Pears, J., 12, Victoria Road

ASHTON, near NEWTON-LE-WILLOWS.
Holmes, Allen, Turner Street
Pinnings & Watson
Robinson, John, Catherine Street

ATHERTON.
Grundy, Thos., Atherton Sawing Mill

BARROW-IN-FURNESS.
Gradwell, W., The Exors of

BIRKDALE (see Southport.)

BACUP, MANCHESTER.
Bresley, J., Goughill

Hargreaves, T. & Co., Burnley Road
Hargreaves, J. Y., Burnley Road
Satchell, J. W., Newchurch Road
Wilkinson, J. S., Rochdale Road
Wilkinson, K., Lee Road

BLACKBURN.
Abbott, Benjamin, Fish Lane
Alvey, A., Hutton Street (Plasterer)
Arkwright, W. & T., Canterbury Street
(Bacon)
Brooks, Geo. Wm., Barod's Yard, Darwen
Street

Calvert, J., St. Andrew's Street
 Chadburn, J., Salford (Plumber)
 Cheetham, C., Darwen Street (Plumber)
 Charley, J. & Bros., Livesey
 Charley, Thomas, Queens Road
 Cook, W. and Sons, Carr Street (Plasterers)
 Graves, Thomas, Randal Street
 Dyson, J. & Son, Canterbury Street (Flaggers
 and Slaters)
 Eastwood, R. T., Regent Street (Flagger and
 Slater)
 Edmondson, Wm., Bolton Road Saw Mills
 Feitt, J., Weir Street
 Gilchrist, W. & J., Wensley Street (Brick-
 setters)
 Harrison, Bury Street Saw Mills
 Hileon, Winton (Bricksetter)
 Higgin, Thos. & Sons, Byron Street
 Howie, Christopher, Weir Street (Mason)
 Ibbotson, R., Mill Lane
 Kenyon & Moulding, Montague Street
 Lewis, E. & Son, Great Harwood
 Marshall & Dent, Linsbrick
 Parker, James, Peter Street, Daisyfield
 Pickup, H., Northgate (Painter)
 Simons, Wm., & Sons, Darwen Street
 Walmley Bros., Whalley New Road
 (Masons)

BLACKPOOL.

Cardwell, Jas., Bros., Church Street
 Dean, W., Alexandra Road, Southshore
 Dewhurst, Jas., Beachhead Street
 Eaves, Wm. & Co., Northshore Mills
 Fisher, Jas. Blundell, Moore Street, South-
 shore
 Fisher, J. R., Princess Street
 Fielding, Jos. & Sons, Grease Hill
 Nickson, John, Coop Street
 Potter, J., Moore Street, Southshore
 Smith, Thos. H., Queens Street
 Smith, Geo., Marton, near Blackpool
 Smith, Thomas & Sons, Great Marton
 Ward & Brown, Revoc
 Whiteside, Jas., Church Street

BOLTON.

Barrow, Wm. & Son, Rath Street, St.
 George's Road
 Bebbury, James Orlando Street (Bricklayer)
 Bennwell, S., Hampden Street (Sater)
 Bryce, Wm., Hanover Street
 Cunliffe, Wm., John Street, Derby Street
 Clitchley, H., Palace Street (Plasterer and
 Painter)
 Caerden, R., St. George's Road (Plumber)
 Davies, Richard, Shaw Street
 Dickinson, John, Bark Street
 Dohie, W., & Sons, Nelson Street
 Dugan, J. W., in, Hampden Street
 Gowanlock, R. & Son, 273, Hampden
 Street
 Gerson & Smith, Mere Hall Street (Masons)
 Hudson, J., Inn, St. George's Road (Slater)
 Harston, W., 27, Devonport Street
 Haywood Henry, 10, Church Street
 Kay, Wm., 29, Bark Street
 Keayon, Wm., Spa Road
 Mcgness, Edw., Brightmet Street
 Marsden, J. H. & C., Br. dig Street
 Norris, Chas., & Sons, Brickman Street
 Panton, R., Bedford Street
 Taylor, J. W., Exors. of Bury New Road
 Tewson, Wm., Park Hill Street
 Warburton, A., 75, St. Helen's Road, Daub-
 hili (Plasterer and Painter)

BOOTLE.

Hughes & Stirling, 4, Branscoe Road
 Webster, Samuel, 10, Branscoe Road
 Woods, George & Son, 283, Stanley Road,
 Canal Bridge

BURNLEY.

Aston, William, Bankhall Terrace
 Cadworth, George, Temple Street (Mason)
 Dean & Sons, Plumb Street (Joiner)
 Gill, Thomas, Burnley Lane
 Hanson, John, Stanley Street (Joiner)
 Heaps & Harries
 Heap, Edmund, Lerne Cottages
 Howley, John, 5, Temple Street
 Kippax, Robert, 4, Fairbairn Street
 Laycock Daniel & Sons, Ormerod Road
 Oates, Thomas, 30, Berkeley Street
 Owen & Co., Manchester Road (Plumbers)
 Simpson Bros., 10, Ardwick Street
 Kippax, Robert, 4, Fairbairn Street (Joiners)
 Smith John, Plumb Street (Masons)
 Smith Bros., Albert Street (Masons)
 Simpson, Jer., Slater Street (Mason)
 Stanworth, William, Cordes Street (Slater)
 Todd, Henry, 24, Waterloo Road

BURY.

Birtwistle, A. & Sons, Bolton Street
 Brerely, Charles, Fishpool
 Byrom, James, Whitelegge Street, Woolfold,
 near Bury
 Clogh, Thomas, School Brow
 Crossley, Thomas, Buckley Walls
 Comfort, John, Rosehill
 Crossley, Thomas, Hyson Street
 Hall, J. & S., Calston Street
 Hill, F. & C., Tenterden Street
 Iman, John, 41, Horne Street, Fishpool
 Smith, John & Sons, East Street
 Thompson & Brerley, Paradise Street
 Turkin, John, Parker Street
 Walde, T. & L., South Cross Street

CHORLEY.

Brownley, Robert, Railway Street Saw
 Mills
 Brindle, James & Sons, 88, Clifford Street
 Collinson, William, & Son, Dole Lane
 Evans, James, 54, Stanley Lane
 Leyland & Walmley, Sherbourne Mill
 Lucas, John R., St. Thomas's Square
 Leggon, James, & Son, Bolton Street
 Toottell, George, & Son, Stanley Place Saw
 M.S.

CHURCH, near ACCINGTON.

Grimshaw, James, Dell Hall Lane

CLITHEROE.

Carr, Joseph & Son, Moor Lane
 Hargreaves & Whalley, Lowergate
 Jackson & Bleasard, Eskaton Terrace
 Mitchell, Thomas, Eskaton Terrace
 Vezvora & Son, Shaw Bridge

COLNE.

Atkinson, John R., Mage Street
 Brown, Jas. & Wm., Brown Street
 Hawley, Joseph, Brown Street
 Lane, John, Crag Street
 Lane, Thomas, Skipton Road
 Lancaster, Peter, Walton Street
 Robinson, Peter, Fouldridge, near Colne

DARVEN.

Lloyd & M'Edward, Blackburn Road

EGGLES.

Moore, Thomas & Sons, Moston Road

ELTON, BURY.

Hardman, C. & Sons
 Newhouse & Wigley

FISHPOOL, BURY.

Beterley, Charles
 Imman, John

FLEETWOOD.

Jones, R.
 Riley, Thomas

GARSTANG.

Collinson, J. & Sons, Nately Works

HEATON NORRIS.

Meadows, Thos. & Wm., Heaton Norris
 Saw Mills

HORWICH.

Bimes, J. & T., Whiter Hay Lane

INCE, WIGAN.

Wagan, Alexander, Manchester Road

LANCASTER.

Harrison, Wm., Moor Lane
 Lancaster, Thos., Ullaswater Road
 Warbrick, Wm., Penny Street
 JOHNSAS

Blades, Chas., Dalton Square
 Greene, John, Bulk Street
 Hatch, James, & Sons, Queen's Place
 Wright, R. S., & Sons, King Street

PAINTERS.

Riley, G., Penny Street
 Binfield & Lawton, King Street
 Meadowcroft, E., Gage Street
 Paton & Binfield, King Street
 Payne, Edwin, Castle Hill
 Shrigley & Hunt, Castle Hill

PLUMBERS.

Abbott, Brock Street
 Calvert & Heald, Market Street
 Seward A., & Co., Market Street

SLATERS AND PLASTERERS.

Cross, Thos., & Son, King Street
 Hall, R. & Son, Friar Street
 Earley, H., & Son, King Street
 Harrington, Wm., King Street

LEIGH.

Edison, J., Henrietta Street
 Eysel, H., Ducie Street
 Wright, Peter, Union Street

LITTLEBOROUGH.

England, James (Joiner)
 Taylor, E. & Co.

LIVERPOOL.

Brown & Backhouse, 58, Chatham Street
 Gabbitt, Edmund, 50, Oakton Street
 Goodall & Co., 38 & 40, Mope Street
 (Slaters and Plasterers)
 Henshaw, Joshua, 8 & 10, Chatham Street
 Haigh, T., & Co., 21 & 23, Fraser Street
 Holme & Green, 10, Benson Street
 Holme James, 74, Hicks Road, Seaforth
 Hughes & Stirling, 6, Stanley Street
 Johnson, G., Seaford
 Jones & Sons, 21-23, Pleasant Street
 Kelly Bros., Walton
 Lewis, John, Arundel Avenue, Sefton Park
 Merrick, Wm., Benson Street (Plumber)
 Mayor, F., Tichelars Street

Norton, G. H., & Sons, Bold Street (Painters, Decorators, &c.)
 Nicholson & Clarke, 268, Wellington Road
 Oates, Richard, 26, Vauxhall Road
 Polard, F. W., 4, 10 & 12, Rumber Street
 Roberts & Robinson, Ltd., Berlington Bush
 Roberts, Jas., 28, Upper Stabhope Street
 Tanser, John, 20, Son, Gill Street (Slaters and Plasterers)
 Thornton & Sons, 38, Wellington Road
 Tomkinson, Wm., & Sons, 21, Danis Street
 Tomkinson, Wm., & Co., 22, Roscoman Street
 Tyson & Co., Roscoman Street
 Urmon, Thos., 60, Soho Street
 White, Alexander, & Sons, Duke Street (Painters and Decorators)
 Wilby, A. C., Falker Street (Painter, Plumber, &c.)
 Writter, W. & F. S., 10, Chatham Street
 Yates, Hugh, 26, Bute Street

LONGRIDGE, *near PRESTON.*

Key & Fieder, Chapel Hill
 Robinson, A., Lower Lane

MANCHESTER.

Armstrong, F., Broughton Lane
 Barrow, J., Seabank Street (Slater)
 Bailey, W., 74, Winslow Road, Withington
 Birch, J., St. John's Street, Deansgate
 Brown, W., & Son, Old Trafford Rd., Salford
 Burgess & Co., Upper St., Stockport Road
 City, G. & Co., Beech Street
 Cain, J. & P., King Street, Streiford
 Cordingley & Simpson, Stockport Road
 Ferguson, W. & Co., Lower Mosley St. (Plasterers, &c.)
 Gerrard, J., & Sons, Worley Road, Liverton
 Harrison, W., & Son, Browners Street, Salford (Plumbers and Glaziers)
 Harrison, W. W., 16, Wright Street, Greenhays
 Harwood, J. J., Strangeways (Plasterer and Painter)
 Haynes, F. & E., Denmark Road, Moss Side
 Healey, W. (Exors. of), Hulme St., Salford (Receivers and Bricklayers)
 Heywood, R., Faulkner Street (Plumber and Glazier)
 Holt, W., Elizabeth Street, Cheetham
 Jackson & Sons, Old Lane, Openshaw
 Johnson, S., Irlan on the Height
 Kendall, J. B., Dyche St., Rochdale Road (Stonemason)
 Kewworthy, J. P., Green Street, Ardwick
 Knight, T., Bolton Street, Salford
 Langton & Co., 77, Sackville Street
 Lomas, W. H. (Exors. of), Strangeways (Plasterers and Painters)
 Matthews, H., Darley Street, Hyde Road
 Mcgarity & Co., Lever Street
 McFarlane, G., New York Street, Chorlton-upon-Medlock
 McFarlane, J., 64, Granby Road
 Neil, H. & Sons, Broughton Lane, Strangeways
 Patteson, J. & H., Oxford Street (Stonemason)
 Peace & Norgay, 70, Port Street
 Parkinson, G., Fulmerston Street, Ancoats
 Ramsbottom, J., Church Street, Pendleton
 Roberts, D. & Co., Rochdale Canal Yard, Dale Street
 Southern, W., & Sons, Bank Parade, Salford
 Scott, T., Atherton Street

534

Statham, J. & Sons, 3, Broad Street, Pendleton
 Sudborough, S., Adlands Lane, Levens-
 -holme
 Shaw, H., Grafton Street, Oxford Street
 Shaw, W., Fern Leaf Street, Greenhays
 Thorpe, W., Coacbrook Park Road
 Whitell, R., Barnes Green, Blackley
 Wood, E., Milnes Street, Lower Broughton
 Warburton, S., Miles Plating
 Ward, J. L., 65, Upper Brook Street, Chobton-upon-Medlock
 Wilson, Tolt & Huntley, 3, City Road, Holme

NEWTON-LE-WILLOWS.

Penelagoun, J., Earlston
 Pennington & Watson, Ashton
 Scott, T., Market Street
 Wakefield, J., Golborne

NEWCHURCH, ROSENDALE.

Ashworth, J., Whitwell Bottom

OLDHAM.

Ashton, J. & Sons, Chespie
 Booth, Smith, Fielding Street, Lees Road
 Brown, Henry, Bourne Street, Hollinwood, near Oldham
 Dudd, Wm., Featherhall Road
 Denkerley, S., Sons, & Co., Werneth
 Helliwell, H., Hollinwood
 Lees, W., & Son, Smith Street
 Maltella & Milne, Hartley Street
 Ogden Bros., Middleton Road, W.
 Partington, John, Chadderton
 Partington, O., M. Junction, near Oldham
 Partington, John, Middleton Junction
 Schofield, C., & Co., Lees Road
 Simthurst, S., Crossbank Street
 Smethurst, S., J., Rochdale Road
 Stephenson, E., Tinsia Street West
 Spencer, John, & Bros., Prince Albert Street
 Turner, Wm., St. Stephen Street
 Whitehead, J. & J., Swan Yard, Huddersfield Road
 Whittaker, W., Rochdale Road
 Whittaker, Emanuel, (Exors. of) Rochdale Road
 Wrigley Bros., Chamber Road

ORMSKIRK.

Riding, T., Son, Chapel Street
 Ridgway, W., Barrough Street
 Whittle, J., Moor Street

PATRICROFT.

Brooks, N., & Son, Edesmere Street
 Chapman & Hollingworth, Green Lane
 Roper, J., Barton Road

PEMBERTON.

Bywater, A., Ormskirk Road
 France & Smith, Newton

PRESTON

Arrowsmith, Robert, Ormskirk Road
 Baldwin, J., 127 & 128, Park Road
 Bilsborough & Sons, Lees Street (Plumbers)
 Bradshaw, Jas. R., & Son, St. Paul's Road (Slaters)
 Chilton, Chas., Avenham Street (Plumber)
 Christen, J. G., Grimsshaw Street
 Cooper & Pollis, Old Vicarage
 Corbett, T., Fyld Road
 Croft, T., St. Pan's Road
 Dewhurst, R., Fyld Road
 Hill, G., Canaan Street
 Hothersall, W., Chapel Walks
 Hull, J., Green Bank, Brook Street

Kenyon, T., Aqueduct Street
 Nickson, Thos., St. Paul's Road (Slater)
 Park, Robt., & Sons, Fox Street (Plumbers)
 Robinson, Jas., Moor Lane (Slater)
 Swarbrick, Jas., Victoria Parade, Ashton (Bricksetter)
 Taylor & Co., Fishergate Hill (Plumbers)
 Tella, D., & Son, St. Paul's Road
 Tyson, Jas., Aqueduct Street East (Plasterer)
 Walker, C., Arthur Street
 Walmesley, J., Theatre Street
 Walmesley & Co., Fishergate (Plumbers)
 Whitmore, W., Old Vicarage
 Wilding & Sons, Lees Street (Plumbers)

PRESTWICH.

Barker, Joseph, Rainsough

RADCLIFFE, *near MANCHESTER.*

Allen, John, Railway Street
 Collier & Smith, Church Street
 Rigby, Wm., Seymour Street

RAINFORD.

Pilkington, James

RAWTENSTALL.

Hobson, S., Constable

ROCHDALE.

Berry, Thos., & Son, Milnson Road
 Coates, J. & J., Old Vicarage Road
 Crabtree, Thomas, Sheriff Street
 Feners, W. A., & Son, Townhead Saw Mills
 Taylor, Thomas, King's Road

SALFORD, *near MANCHESTER.*

SAINT HELENS.

Beelet, Samuel, Toulon Street
 Crook & Marsh, Liverpool Road
 Davies, R. H., Boundary Road
 Fisher, James, Olive Mount, Sutton
 Harrison, Wm., Coatham Street
 Hebble, Geo., Traversa Street
 Latham, James, Windle Timber Yard
 Molyneux, Wm., 24, Ashcroft Street
 Rotherham, T., Boundary Road
 Roberts, Thos., North Road
 Rothwell, John, Knowsley Road
 Rothwell & Sons, Knowsley New Road
 Shaw, Hugh, Junction Road, Sutton
 Tickle, Peter, Hamford Street
 Walsburn & Son, Kirkwood
 Whittaker, John, Foundry Street
 Yeardley, T. & J., Coatham Street

SMITHY BRIDGE, *near ROCHDALE.*
 Preston & Dryland (Bricksetters and Stone-
 masons)

SOUTHPORT.

Blanchard, Joseph, 1, Harvest Side Street
 Conard, Wm., 125, Hampton Street
 Cosnand & Telford, Lord Street (Painters
 and Decorators)
 Duxfield, Bros., 2, Virginia Street
 Farrbridge & Huth, Ashtree Road, Birk-
 -dale (Joiners and Builders)
 Fenton & Fleet, 95, Linaker Street
 Foster, W., Shakespeare
 Habbell, Henry, 324, King Street (Stone-
 mason)
 Hill, Wm., & Foster, Shakespeare Street
 Hutchinson, Gen., 46 & 48, Tulketh Street
 Johnson & Clegg, Shakespeare Street (Stone-
 masons)
 McWlan, J., East Bank Street
 Shaw, Nicholas, Zealand Street
 Vaughan, W., Kensington Road

Whitehead, T., Portland Street
Wilkinson, Wm., 24, Shakespear Street
Wilkinson, Daniel, Forest Road
Wishart & Irving, Mill Street (Joiners and
Builders)
Wycheley, Geo., Rawlston Road

STAFFORD.

Cais, John & Philip, King Street

TODMORDEN.

Halstead Bros., Eastwood
Lamb, B.
Madison, Marmade, Stanzfield Road
Smith, Benjamin

TYLDESLEY

Bentley, A.

WALTON, near LIVERPOOL.

Kelly Bros., 77 & 107, Rice Lane

WARRINGTON.

Collins, John, & Son, Academy Street
Gibson, Joseph, & Son, 31, Ch.-rich Street
Norbury, John, Widdowson Road
Taylor, Wm., Haydock Street
Washington, Geo., Junr., 35, Froggall Lane

WATFORD, near LIVERPOOL.

Dilworth, I., Childwall Road
Monson & Sons, 260, Picton Road

WIDNES

Sayce & Randle, Appleton Quarry

WIGAN.

Ablett, David A., Sovereign Saw Mills
Barkburn & Leyland, Malva Cross
(Plumbers)
Francis & Smith, Newtown
Gaskell & Son, Millgate (Plumbers)
Holmes, C. B., Cross Street Saw Mills
Johnson & Son, Regent Street
Jonsen, J., Caroline Street
Lea, W. & Brother, King Street (Painters
and Plasterers)
Lea, J. & Son, Rodney Street (Painters and
Plasterers)

Milington, Alfred, King Street
Preston, John, Cheshire Street Saw Mills
Wilson, J. & Sons, Caroline Street
Winnard, Wm., 186, Wallgate

WOOLFORD.

Byrom, James

LEICESTERSHIRE.

BARROW ON SOAR, near LOUGH-
BOROUGH.

Black, Wm.
Black, Henry

BOTTESFORD, near NOTTINGHAM.
Challands, H. & J.

BELGRAVE, near LEICESTER.
Harrison, W. E., Hallin Street

GLEN MAGNA.

Haycock, Charles

HUNGARTON, near LEICESTER.
Gennies, Wm.

HUSBANDS BOSWORTH
Wells, Robert

KILWORTH.

Mason, T. & W.

LEICESTER.

Bass, C., Albion Hill
Bentley, S. & E., Regent Street
Bentley, J., 6, Evington Street
Blair, T. & Son, Harvey Lane
Bland, H., 29, Oxford Street
Chambers, H. T. & A., 185, Belgrave Gate
Clarke & Garrett, 9, Willow Street
Duxbury G. & Son, Northampton Street
Elliot, N., 137, Great Holmes Street
Gompson, W. & Son, Wellford Road
Halnam, J. J., St. Saviour's Road
Herbert, J. H., Wellford Road
Herbert, T., Wellford Road
Hewitt, C., 74, Humberstone Gate
Holt, G., St. Peter's Road
Hutchinson, J., Morley Street
Hutchinson, E. T., Morley Street
Hutchinson, J. & Son, Lincoln Street
Jewsbury, J. O., 49, Oxford Street
Kellitt, W. H., 64, Ayleston Street
Kellitt, J. C., 24, Ayleston Street
Major & Son, 39, Great George's Street
Mason, J., 135, St. Saviour's Road
Mason, J. H., 66, King Richard's Road
Plant, A., Humberstone Street
Plant, J., Humberstone Street
Pipes, E. B., 22, Gopall Street
Tyers, T. C., Humberstone Road
Tyers & Yates, Bright St., Humberstone Rd.
Wright, C., 15, Muldun Street

LONG WATTON.

Wilkins, Jesse

LOUGHBOROUGH.

Barber, Thomas, Swan Street
Corah, W., Pinfold Gate
Faulkner, Arthur
Mell, A. & S.
Moss, William, Baxter Gate
Needham, W., Derby Road
Watson & Leatt

LUTTERWORTH.

Law & King

NELTON MOWBRAY.

Bagnes, Charles, Thorpe End
Fest, John J.
Glover, Josiah
Wartnaby, John R., Charlotte Street

NEWFOUND POOL, near LEICESTER.
Wright, C., Beattie Road

QUORNDON.

Fewkes, D.

ROTHLEY.

Slack, Frank

SHEEPSHEAD.

Aikin, W., Brook Street

SOUTH WIGSTON.

Orson, Wright, & Co.

STOKE GOLDING, near HINCKLEY.
Shilton, Thomas

SYSTON, near LEICESTER
Hickling, W.

WALTHAM ON THE WOLDS,
Chester, George

WOODHOUSE EAVES.

Wesley, Oliver

LINCOLNSHIRE.

BARNETBY (ULCEBY post town).
Mauders, J.

BARTON ON HUNDER.

Davis & Hewitt, 12, Burgate
Stamp, John, Finkle Lane

BOSTON.

Sherwin, S., Wide Burgate
Lucas, John, West Street

BOURN.

Chappell, H., North Street
Storry, J. T., North Street

BRIGG.

Dent, George, 12, Bridge Street
Clark, Caleb, Queen Street

BROUGHTON (BRIGG post town)

Holt, Thomas

CROSSBY.

Ellis, James

GRANTHAM.

Hockley & Son, London Road
Prest, W. & G., Wharf Road
Rudd & Son, Wharf Road
Sharp, M. J., Little Byzam
Walker Bros. & Palf, Little Gossby
Walker Bros., Castlegate
Wartnaby & Son, Little Gossby.

GRIMSBY.

Hollingworth, Richard, Victoria Street

HORNCASTLE.

Hatfield, Mark
Walker & Hensman, Bank Street

KIRKINGTON (ULCEBY post town).
Havercroft, John

LINCOLN.

Allen, Geo., Balgates
Close, H. S. & W., Brayford Wharf
Goodbarne, W. S., Brayford Wharf
Harrison, Melville Street
Harrison, J. B., 8, Portland Street
Harrison, J. M., Norman Street
Harrison, J. W. & Son, York Street
Horton, S., 18, Portland Street
Martin & Sims, Castle Hill
Morgan, G., Butcher's Street
Otter & Broughton, St. Rumbold Street
Wright, W. & Son, Park Street

LOUTH.

Thompson & Sons

MARKET RASEN.

Scapham, Henry

RIPPINGALE, near BOURN.

Wortley, John

RUSKINGTON, near SLEAFORD

Pattinson, S. & W.

SCUNTHORPE (DONCASTER, post town)

Buxton, Geo., Edward
Wilford, Samuel

SLEAFORD

Haxey, W., Eastgate

SPILSBY.

Hunter & Son, West End Terrace

STAMFORD

Bowman, E., Recreation Road
Halliday, S. F., Scoopgate
Roberts, Beca., Wharf Road
Woolston, John, St. Peter's Hill

ULCEBY.

Potts, William

WOOTON (ULCEBY, Post Town).

West, Wm & Robert

SUTTON BRIDGE, WISBECH.

Batesman, Samuel
Batesman, James

MIDDLESEX.**FELTHAM.**

Larrett, C.
Lodge, C.
Watson, H. C. & Son

GREAT STANMORE.

Kirby, G. & Sons, Great Stanmore

HAMPTON WICK.

Constable, G. J., The Terrace

SOUTHALL.

Gibson, J.

TEDDINGTON.

Piller, J., Church Road

TWICKENHAM.

Mason, T. J., Grosvenor Road

UXBRIDGE.

Fessidge & Son, St. Andrew's
Kearley, C. F., High Street

MONMOUTHSHIRE.**ABERGAVENNY.**

Foster, Thomas, Brecon Road
Thomas, J. G., Lion Street

BLAENAVON.

Borgeyse, J.

MONMOUTH.

Morgan, Charles, Mayhill
Roberts, D. & Son, Wymde

NEWPORT.

Blackburn, Wm., Marash Road
Blackburn, W. M., The Lincens, Penton-
ville

Francis, Joseph, g. Francis Street
Jones, Wm. & Son, 3, Mowmjoy Place
Linton, John, 88, Commercial Street
Maitlen & Brownes, Temple Street
Martin, Geo., Clytha Park Road
Miles, Chas., Clytha Park Road
Wilkins, J., Clytha Park Road

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NORFOLK.**CROMER**

Riches, G.

DEVISINGHAM, near LYNN.

Chambers, G. & Son

EAST DEREHAM

Mayes, R., Norwich Road

GORLESTON

Cockrill, J. W. & Sons, High Street
Fulker, G., High Street
Kemp, R., High Street
Leggett, T. G., England's Lane

HUNSTANTON.

Beston, J. W.

KINGS LYNN.

Bardell Bros., London Road
Brown, W. H., London Road
Dye, R., London Road
Langley & Son, King Street
Thing & Son, High Street

MIDDLETON, near LYNN.

Gambie, G.

NORTH WALSHAM.

Cornish & Gaymer

NORWICH.

Daws, Robt., Dereham Road
Downing, J. & Son, Victoria Street
Hawes, G. E., Duke's Palace
Holmes, J., Red Lion Street
Horn, John, Princess Street
Lacey, Horace, Upper King Street
Lacey, J. W., Bridge Street, St. Andrew's
North, W., St. Stephen's Street
Scallies Bros., Surrey Road
Smith, J. S., New Lakenham
Wegg, R. S., George's
Wilson, W., Cow Hill, St. Giles
Wilkins, W., Grapes Hill, St. Giles
Youngs & Son, Chapel Field Road
Youngs, J., Chapel Field Road

SOUTHERY.

Porter, D. & Son, Downham Market

NETTISHAM, near LYNN.

Chivers, Jonas

UPWELL.

Elworthy & Son

WEST WALTON.

Grimmer & Webb

YARMOUTH (GREAT).

Bond, A. E., Albion Road
Cooper, J. S., Theatre Plain
Cork & Bosch, Canine Road
Davy, Robt., Market Road
Howe, Thomas, York Road
Leggett, James, Dene Side
Springall, B., Nelson Road

NORTHAMPTONSHIRE.**COGENHOE, near NORTHAMPTON.**

Clayson Bros

COOKNOE, NORTHAMPTON.

Clayson Bros.

DAVENTRY.

Geo

DENFORD THRAPSTON.

Freeman & Son

EASTON STAMFORD

Pekles, Messrs., Easton-on-the-Hill

FINEDON.

Abbott, S.

KETTERING.

Barlow, A., Tanner's Lane
Barlow, Edward, Rothwell Lodge
Bellamy, John, Victoria Street
Cottman, J.
Henson, Geo., Headlands
Henson, C. & F., Headland Road
Henson, J. H., Victoria Street
Henson, G. N., The Broadway
Henson, H. F., Alexandra Street
Manby, S.
Margitts & Neal
Payne, W. J., Upper Field Street
Sharma, C., Market Street

NORTHAMPTON.

Archer, Ed., 56, Abington Street
Beardmore, Wm., Albert Street
Clarke, J. B., Park Crescent
Claver, R., Wood Street
Coxford, Thos., Cosensgate Street
Finigan, R., Barns Street
Fisher, Geo. J., Castilian Terrace
Green Bros., Palmerston Road
Hawtin, Colwyn Road
Heap, Wm., St. James' Street
Martin Henry, Thensford Street
Reynolds & Son, Derrigate
Smith Bros., St. Gold Street
Walden Bros., 42, Sheep Street
Wingrove, J. T., Talbot Road
Woodford & Sons, Scarletwell Street

PETERBOROUGH.

Furness, R., Cromwell Road
Hicks, Henry, Hunsley Grove
Machin, H., Hunsley Grove
Thompson, John, Wood Street
Wemlock & Co., Lincoln Road

ROTHWELL, near KETTERING.

Barlow, Fred
Barlow, Ed.

RUSHDEN, HIGHAM FERRERS.

Bayes & Son, Little Street
Sparrus, Henry, Wellingborough Road

THRAPSTON.

Coates & Son

TOWCESTER.

Heath, Thos.
Wheat, Thos.

WELLINGBOROUGH.

Brown E. & Son, Castle Street
Henson, G., Midland Road

NORTHUMBERLAND.

ALNWICK.

Armstrong, M., Beaconsfield Terrace
Dryden, W. & Son, Glaston
Dunn, J., Boniface Without
Forster, T. & Son, Narrowgate
Hunter, H., Paradise Street
Lake & Dixon, Green Bait
Medral, T. W., Chapel Lane
Short, J. & Son, Roxburgh Place
Smith, W. J.
Whitman, J., Willoughby's Cottage
Wilson, J. & Sons, Duke Street
Wright, W., Wagon Way

ANBLE ACKLINGTON.

Brown, R. & G.
Carm, R. & Son
Green & Douglas

BEEFICK.

Birgham, W., Tweedmouth (Joiner)
Barr, A. C., Spittal (Joiner)
Elliot, H., College Place
Gray & Son, Ravensden
Henderson, W., Tweedmouth (Joiner)
Hope, J., Tweedmouth (Plumber)
Rale, F., Tweedmouth (Slater and Plasterer)
Scorer, D., Spital (Joiner)
Turner, J. & Sons, Horncliffe (Slaters and Plasterers)
Weatherston, J. (Slater and Plasterer)
Wilson, J. & Son (Plumber)

BLYTH.

Simpson, J. & W.

GATESHEAD ON-TYNE.

Haswell & Wigham
Lamb, T. & R.

GOSFORTH.

Gabrey, L., Causey Street

LESBURY.

Wilson, J. & Sons,

NEWCASTLE ON TYNE.

Barton, W., New Bridge Street
Burnap & Sons, 77, Clayton Street
Burton, S. B., 16, Radley Villas
Dinning & Cooke, 91, Percy Street (Plumbers)
Elliot, J., Mosley Place
Ferguson, J., St. Mary's Place
Fenby, J., Elswick Court
Kirk & Brown
Lowry, J. & W., Corporation Street
Mangan, N., Westgate Road
Middleton, Brock, 107, Northumberland Street
Reed, F. R. & Son, West Blamford Street
Reed, N. R. & R., Bath Lane Terrace
Richardson & Co., Dean Street (Decorators)
Scott, W., 21, Granger Street, W.
Scott, G. & Son, Douglas Terrace, E.
Tyne & Graham
Walker, H. & Son, Gallowgate (Plumbers)
Watson, H. & Son, High Bridge (Plumbers)
Weatherill, T.
Wilson, W., near Wark, North Tyne

NORTH SHIELDS.

Bolton, R., King Street
Carlson, T., Victoria Place
Elliot, J., Church Street
Frederick Bros., Grosvenor Place
Holden, R., Waterville Road

Park, G., Gray Street
Simpson, J. & W., Railway Terrace
Slack, Messrs., Church Street
Sopwith & Kent, Church Way

TYNEMOUTH.

Hutchinson, J., Front Street
Vert, J.

WHITLEY.

Nesbit, R.
Sizem, J.

NOTTINGHAMSHIRE.

MANSFIELD.

Fisher Bros., Albert Street
Frisby, S. & G., Stockwell Gate
Greenwood, John, Wood Street
Vallance, Charles, C. Aschles Street
Vallance, W. A., Clumbers Street

MANSFIELD WOODHOUSE.

Stevenson, George

NEWARK.

Baines, C., Appleton Gate
Smith & Latta

NOTTINGHAM.

Adams, J. J., Colville Street
Barlow & Whitaker, Pinder's Road
Bell, G. & Son, Sherwood Street
Cargill, J. & J., Duke Street, New Basford
Clarke, A. B., Wright Street, Blue Bell Hill
Cooper, John, Forest Road West
Cuthbert, J., Patterson Road, Hyson Green
Duckley, H., 2, Peachey Street
Dunnett & Ingle, Station Street
Evans & Woodcock, Hyson Green
Fish, T. & Son, Pilcher Gate
Fish & Sons, Hermage Mills, Szeleson
Foster & Barry, 118, London Road (Road Contractors)
Gilbert & Gabbiana, 200, Waterway Street
Halford & Frost, Laundry Street
Henson, W., 408, Alfrington Road
Hobson & Son, Castle Meadow Road
Hind, Enoch, Edgar Row
Hutchinson, J., Long Hedge Lane
Keeling, Benjamin, 140, Burford Road
Lysan & Kadd, Castle Road
Meale, Wm., Sherwood Rise (Road Contractors)
Messom, Fred., Lenton Boulevard, 33
Nottingham Road
Messom, J., 11, Lower Talbot Street
Murray, Wm., Belter Road, Hyson Green
Scott, Henry, 68, North Sherwood Street
Shaw, Joseph, Sherwood Rise
Smart, Thos., Trent Bridge, London Road (Road Contractors)
Tasch, Samuel, 25, Canal Street (Road Contractor)
Vickers, Henry, Waterway Street
Vickers & Son, Walford Road
Wartons, Francis, 21, Fleckey Street
Weatherly & Manie, Sherwood Street
Woodward, Wm., Toll Street
Wright, John, Raleigh Street

RETFORD.

Wilson, John
Hopkinson, Thomas, 2, London Road
Tomlinson, J., Grove Street

OXFORDSHIRE.

BANBUY.

Grant, John, Middleton Road
Keebley, J. S., Britannia Road
Orchard & Son, Bridge Bank
Page, Thomas, Middleton Road

BICESTER.

Grimsley, T. & Son, The Causeway

CHIPPING NORTON.

Burden Bros.
Robbs, W. J., West End

DEDDINGTON.

Franklin, H. R.

GORING.

Higgs, T.

HENLEY-ON-THAMES.

Clements, C.

OXFORD.

Castle & Martin, Bullington Road
Castle, G. (Racors), Pembroke Street, St. Clements
Colston & Plummer, Worcester Place, Walton Street
Curtis, C., Little Clarendon Street, St. Giles'
Kierulff, T. H., 35, Queen Street
Knowles & Son, 30, Holywell Street
Symm & Co., Little Clarendon Street, St. Giles'
Willets & Sons, 25, Walton Crescent, St. Giles'
Wynt & Son, 74, St. Giles' Street
Wynt, W., St. Giles'

WITNEY.

Barlett

RUTLANDSHIRE.

UPPINGHAM.

Chapman, J., High Street
Dean, W., High Street

SHROPSHIRE.

BISHOP'S CASTLE.

Bright, W. C.

BRIDGNORTH.

Rabe, Whitburn Street
Head & Son, Whitburn Street

LUDLOW.

Gray & Watkins, Broad Street
Grosvenor, J., Corne Street

NEOLE.

Rowlands, John, Post Office

OAKENGATES.

Blakemore, I.
Millington, R. & J.

OSWESTRY.

Morris, Chapman & Co., Selop Road
Evans & Walston
Thomas, W. & C., Selop Road

SKIFFNAL.

Yates, R., New Street

SHEPHERD.

Bowdler & Co., St. Julians Friars
Davies, Fred., Chester Street
Everall, Robt., The Friary
Farmer, Hy., English Bridge
France, Thos., Alton Terrace
George, Edward, Abbey Foregate
Gethin, John, Frankwell
Jones & Son, St. Alkmund's Place
Morris, Thos., St. Austin's Friars
Prind, Rd., Colaba Building Yard
Trenner & Son, 16, Chester Street

WHITTINGTON.

Pickard, J., 16, Doughton

WELLINGTON.

Roper, A.

STAFFORDSHIRE.

ALTON.

Fielding, J.

BLACKWICH.

Wootton, Samuel

BURLEIGH.

Bennett, N., Newcastle Street
Bowden, J., Moorland Road
Brindley, J.
Coele, Wm., 53, Newcastle Street
Grant, W., Nile Street
Longden, J. J., Newcastle Street

BRIERLEY HILL.

Horton, C. A.

BURTON-ON-TRENT.

Chamberlain Bros., Uxbridge Street
Edwards H., King Street
Hedger, G., Brydley Street
Hunter, J. & C., Moor Street
Lowe, T. & Sons, Union Street
Maddocks, J., Moor Street
Mellors, H. C., Borough Road

CANNOCK.

Raynolds, John

CHESTERTON, near NEWCASTLE-
UNDER-LYNE

Rose Vale Brick & Tile Co. (Cork and
Dowling).

GRADLEY HEATH.

Dove, H. & Son

ENDON, STOKE-ON-TRENT.

Heath, J.

FENTON.

Minks, Thos.

HANLEY.

Corn, Cornelius, Lichfield Street Jewellery
Ellis, Geo., High Street
Godwin, T., Vine Street
Tildesley, Jas. K., Church Street

HEDNESFORD.

Barson, Robert

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LEEN

Grace, Thomas, Broad Street
Knowles, Wm., Derby Street
Lovatt, Richard, Bath Street
Matthews, J. & J., Buxton Road
Nixon, W. & J., Stockwell Street
Phillips, E., (Plumber) Leek

LONDON.

Bennett, Peter H., Anchor Road
Brough, T. S., Foley Road
Celia, Wilton
Goodwin, H., Eusebio Road
Inskip, H. & R., School Lane
Isle, B., Mount Pleasant
Tompkinson & Beitley, Beaufort Road

MILTON, STOKE-ON-TRENT.

Moss, James

NEWCASTLE-UNDER-LYNE.

Gallimore, J., Lower Street
Maddocks, Thomas

PENKEDGE.

Gilbert & Sons

RUGSEY.

Mason, T.

STAFFORD.

Chisfield & Wrench, Bridge Street
Easley, F., Victoria Road
Herbert, Thomas, Wright Street
Jervis, J., County Road
Newitt, C. J., Saw Mills, Bailey Street
Pemberton, W., Wolverhampton Road
Reynolds, W., Victoria Terrace
Whitmore, A. F., Guel Square
Woodlams, W. F., Guel Road
Williams, G., The Green

STOKE-ON-TRENT.

Barlow, Nathan, Copeland Street
Bradbury, Bros., Bath Street
Bradbury, Richard
Brennan, Joseph, Copeland Street
Hawcock, W., Lonsdale Street
Harris, George, Lovatt Street, Liverpool
Road
Yonall, Thos. R., Trent Bridge

TAMWORTH.

Clarson, Charles & Son, Aldergate Street
Watson, Thomas & Son, Albion Road

TUNSTALL.

Grosvant, John, America Street
Procter, John
Smith, Charles, America Street
York, John, High Street

WALSALL.

Kendrick, William, Walhouse Street
Lyons, Alfred, Vicarage Place
Tayler, Thomas, Hall Lane
Winstance, William, Sandwell Street

WALSALL WOOD.

Cresswell, J. & E., Bros.

WEST BROMWICH.

Fisher, William, Paradise Street
Heels, Richard, Barrows Street
Mullin, John, Churchfield
Smith, Henry, & Sons, Dial Lane

WILLENHALL.

Homer, Alfred, Little London
Tildesley, Thomas, New Road

WEDNESBURY.

Trow & Son,

WOLVERHAMPTON.

Bradney & Co., St. Mark's Road
Cockerill, J. & W., Darlington Street
Ford, C. & Sons, Mander Street
Gough, Henry, Dudley Road
Guest, Benjamin, Church Street
Highman, G. & F., Castle Street
Jones, J. & Sons, Ellingham
Lovatt, Henry, Darlington Street
Ridings, B., Powlett Street
Webb & Day, Steelhouse Lane
Wilcock, H., Darlington Street
Cave, Geo., Ruby Street, Cleveland Street
Gough, Edmund, & Cleveland Street
Groves, Andrew, Waterloo Road North
Ham, T. and S., Church Lane
Wyley—Grimsell, Thomas

SOMERSETSHIRE.

BATH.

Ambrose & Son, 3, Railway Place
Birch, W., Barclay House Belvedere
Biswell, J., Railway Place
Bardwell & Wootton, Walcot Street
Laver, Thomas, 24, Angel Terrace
Long, J. & Sons, 18, Newgate Street
Morgan & Son, 3, Kingsmead Terrace
Wibley, C., 10, James Street

BRIDGWATER.

Ashton & Popham, Washington Terrace
Credney Bros., Edward Street
Harris & Tapscott, Polden Street
Kitch, J. H., Salomon Arcade
Pollard, H. W., Eastover
Stockham, J., Victoria Terrace
Willis & Son, St. Mary Street

BRUTON.

Clarke & Son

BURNHAM.

Harding Bros.
Kest, J.
Randall, G.

FROME.

Brown, F. F., Pilly Vale Building Works
Chidley, Z. St., Calverton Street
Hobbs, J. & Son, Broadway
Parfitt, T., Nunney Lane
Singer & Co., Liondowners
Valish, J., Portway

LANGFORD.

Pittard, H.

MILBORNE PORT.

Pitman, G.

NORTON, ILMINGHAM.

Trapp, Messrs.

PORTISHEAD.

Thomas, C. L.

RADSTOCK.

Bird, J., Frome Hall

SHEPTON MALLET.

Cook, J. S., Commercial Road
Emery, J., Town Lane
Pallen, J. H., West Shepton
Pallen, F. W., Commercial Road

SHEPTON MONTAGUE,

Lydford, T.

TAUNTON.

Fox, C. O., Eastbourne Road
Handford, G., East Beach
Morris, J., Alma Street
Pollard, G. H., Wood Street
Pattar, W., Alderman Road
Readell & Son, St. James' Street
Spiller, H. J., Bridge Street
Spiller, A. J., Magdalen Street
Templeman, W., East Road

TRULL, TAUNTON.

Derham S

WESYON SUPER-MARE.

Admitt C., Locking Road
Allen, T., to Beach Road
Dyer, G., Ashcombe Farm
Haynes W., Locking Road
Lewis, R., Pen-y-Bon, Arundell Road
Palmer, J., The Boulevard
Pozzack & Son, Swiss Road
Shorney, J. N., Haglan Circus
Shorney, R., Landemann Terrace, E.
Venice, J., Locking Road
Wilcox, J., Ash Villa, Milton Road

WIVELISCOMBE.

Nurcombe, J.
Richards, Thos.

YEOVIL

Bartlett, E. K., Hendford
Cox, F. (Exors. of), Middle Street

SUFFOLK.

HALESWORTH

Howard, S.

HAVERHILL.

Mason & Son, High Street

IPSWICH.

Bennett, F., New Street
Crayston, W., Argyle Street
Girling, T., Wellington Street
Gunwood, G. & Sons, Corn Exchange
Thwaites, P., Norwich Road

LOWESTOFT.

Barker, R., High Street
Bedwell, A., Roman Lodge, Alexandra Road
Brett, R. I., Regent Road
Cole & Weddhouse, Reglan Street
Gwynne, W. R., Belvedere Road
Hart, R., 15 Factory Street
Swatman, J., 3, Mills Road
Wilsons, W.

MONKS ELEIGH, IPSWICH

Hawkins, R.

(CONTINUED ON COMPANION.)

SURREY.

BETCHWORTH.

Debenham, D.

BRANLEY.

Brown, H., Bramley

CATERHAM.

Scrivener, C. E., Caterham Valley
Thompson, Wm., Caterham Valley

CHARWOOD

Wilkins, Abraham

CHERTSEY

Knight, T. & Sons, London Street

CRANLEIGH.

Holden & Son, Steam Joinery Works

CROYDON.

Bullock, A., Tatfield Road
Duckling, F. R., George Street
Gould & Glasscock, Wadden New Road
Hobbs, J. W. & Co., Ltd., Morland Road
Kass & Son, Church Street
Maiden & Harper, Cherry Orchard Road
Marriage, W., Oval Road
Page, K. S., Boscough Hill
Smith & Balld, Stinchmore Road
Waller, D., Church Street
Taylor, M., Southbridge Road

DORKING

Cole & Son, South Street
Cuthrie, Wm.
Goddard & Son, Knoll Road
Hamble Bros., West Street
Pledge, J., Falkland Road
Putney, W. & J., Limeworks
Shearburn & Co., Steam Joinery Works,
South Street

EGHAM.

Simpson, A., High Street

EFSOM.

Chivington, W. J., East Street
Chute Bros., High Street
Furness Bros., High Street

EVELL.

Best, H., High Street
Hards, A., High Street

FARNHAM.

Goddard & Son
Tempest & Kisham

GODALMING.

Attfield, J., Mill Lane
Carter & Marshfield, Rock Place
Hall, T. E., Drapery Works
Horn George, High Street
Humphreys, J. W., Boro' Road
Seabur, E., Brighton Road

GUILDFORD.

May, P. C., London Road
Moore, A. W., North Street
Smith, W. & Sons, Farnham Road

HORLEY

Jennings, Arthur & R. Albert Road

KENLEY

Hunter & Bryant

KEW.

Blasby, B., Gloucester Road

KINGSTON-ON-THAMES

Collings, J. J., Victoria Road
Cunliffe, Wm., Cromwell Road
Hamilton, G., Acce Road
Lane, W., London Street
Obridge & Son, London Road, Northton
Wells, E., Eden Street

LEATHERHEAD.

Skilton, H., Bridge Street

LINGFIELD.

Head Bros.

MILFORD GODALMING.

Pink, Robert

MITCHAM.

Howard, H. J.

MORDEN.

Knight, Hugh, Morden Road

REDHILL.

Bagley, Wm., Meadow
Buckland, J., Shrewsbury Road
Cook, W. H., Station Road

REIGATE.

Apted, Bros., Doods Road
Bashby, Thos., West Street
Carruthers, Wm., West Street
Hobbsworth, F., West Street
Kellick, Richard, Church Street
Nightingale & Sons, Leaborne Road
Nightingale Bros., West Street

SHALFORD, GUILDFORD.

Mitchell Bros.

RICHMOND.

Gascayne & Blake, Onslow Road
Heasler, G. W., Hill Rise
Lawson & Co., Elm Street
Lillywhite, A. & Sons, Onslow Road
Sims, F., Church Terrace
Sweet & Loder, Marshgate Road

SOUTH NORWOOD.

Bryen, G. E., High Street
Smith, James & Sons, Carmichael Road

SURBITON.

Adkins, C. & T., Carlisle Works

THAMES DITTON.

Callingham, W., Portsmouth Road

WARRINGHAM.

Ward, J. & J., Warringham Station

WIMBLEDON.

Ackermann, W. C., Camden House, Hatfield
Road
Harmer, Henry, Worpole Road
Munday, John, Hatfield Road
Parsons & Townsend, Lingfield Road
Townsend, J., Lingfield Road
Way, Thos., Hatfield Road

WITLEY GODALMING.

Milton, Frank

SUSSEX.

ARDINGLEY.

Box, G.

BEXHILL.

Adams, Albert, Sidley
 Barker, Stephen, Church Street
 Farrow, F. W., Albert Road
 Jenkins, Peter, Western Road
 King, James, Station Road
 Okenden, Samuel, Junior, Belle Hill
 Parker, Henry, Belle Hill
 Parker, F. W., Station Road
 Webb, J. W., Devonshire Hotel
 Wilcox, H. Z., Cranfield Road

DOGNOR.

Bocher, Bros.
 Pratt, W.
 Tate, Wm.

BRIGHTON.

Amesbury, J., 5 Haddon Street
 Barnes, J., 99, North Street
 Botling, Wm., 21, Ship Street
 Carter, Jas., 35, St. George's Road
 Chessum & Co., 53, Kensington Street
 Cox, A. & Sons, 4, Springfield Road
 Creswell, H., 15, Blithington Road, West
 Dighton
 Davey, Bros., 5, Shuterbury Road
 Dean, A., 29, Ditchling Lane
 Field, E., 40, Upper Lewes Road
 Field, W. A. & B., 20, Preston Street
 Freeman, V., 13, Kensington Street
 Garrett, A. & T., 59, Middle Street
 Harrison, J., 50, Spryfield Road
 Holman, J., 11, Dyle Road Drive
 Lockyer, G. R., 16, King Street
 Lynn & Sons, 12, Marlborough Street
 Mason, R., 20, Grand Parade
 Maswring & Son, 13 & 14, Western Street
 Nounham, J. M., 6, York Place
 Parsons, W., 2, Clifton Street
 Parsons & Sons, 118, Church Road, West
 Dighton
 Patching & Son, 43 & 44, Portland Street
 Saunders, J. J. G., Ivory Place
 Wright, J. J., 37, King Street

BURGESS HILL.

Norman, S., London Road
 Oram, W., World's End

CHICHESTER.

Badden, J. C., East Street
 Gambling & Son, Chapel Street
 Holt, J., Westgate Street
 Vick, F. M., Tower Street

CRAWLEY.

Longley, J. & Co., Steam Joinery Works

DITCHLING HASSOCKS.

Wood, Frank

EASTBOURNE.

Cornwell & Son, Royal Parade
 Cornwell, E., Ashford Road
 Coster, J., High Street
 Dora, A., Commercial Road
 Harding, John, Meads Road
 Martin, Mark, Susan's Road
 Martin, Joseph, Commercial Road
 Miller & Seimes, 76, Longstone Road
 Pearless, James, Langney Road
 Stanbridge & Tappin
 Stevens H. & Sons, The Limes, St. Leonards
 Road.
 Tomkinson, Chas., Sussex Gardens.

540

EAST GRINSTEAD.

Charwood Bros., London Road
 Pledge, Walter, Ship Street
 Rice, Chas.

EAST HOATHLY.

Hall & Hannisett

HASTINGS.

Eldridge & Son, 11, Prospect Place
 Harmon, C. & E., Molat Pleasant Road
 Jones, F.
 Moss & Garner, Clive Vale
 Paul, J. & P., 7, High Street
 Snow, D., London Road
 Taylor, Bros., East Sussex Saw Mills
 Vigor, G. (Shop-front Makers and Shop
 Fitters)
 Warman, W. R., Vicarage Road
 Womersley, A. D., Park Road

HASSOCKS GATE.

Betts, J.

HENFIELD.

Martin, J.

HORSHAM.

Dawdney Bros., Brighton Road
 Peters, P., East Street
 Rowland, Bros., Park Street

HURSTPIERPOINT.

Hollands, C. F.

LEWES.

Derry & Bussey
 Card, H. & Son
 Floyd, J., 71, North Street
 Thorpe, J., East Street

LINDFIELD.

Anscombe, A.

LITTLEHAMPTON.

Snewin, J. H., High Street

NEWHAVEN.

Ashdown, H. & Sons, Chapel Street
 Chapman, G. E., High Street
 Knight, A., South Road
 Noviss Bros., Elphick Road
 Woolgar & Son

ST. LEONARDS.

Cruttenden, H. E., Britanny House, London
 Road
 Eldridge & Cruttenden, 20, King's Road
 Hughes, C., 19, East Ascot
 Jenkins, P., 20, Cave's Road
 Kenwood, C., London Road
 Rodda, H. & T., 3, Western Road
 Salter, T., 2, King's Road
 White, A. H., Southwater Road
 Woodall, F., 20, Kenilworth Road

SEAFORD.

Fears & Son
 Moring, Chas.

UCKFIELD.

Cheseman, C.

WORTHING.

Bisler, R. C., Chapel Street
 Crooch, E., Montague Street
 Jenkin & Sons, Warwick Street
 Patching, E. C., Chapel Road

WILTSHIRE.

AMESBURY, SALISBURY.

Cole, W. Q.

CHIPPENHAM.

Dowsing & Bodman
 Light & Smith

DEVIZES.

Ash, H., Senr., Bridewell Street

HIGHWORTH.

Thomas, J., Market Place

EAST KNOYLE.

Howell, J.

MARLBOROUGH.

Hillier, B. High Street

SALISBURY.

Adey, W. H., 40, St. Ann's Street
 Brown, E. S., Portland House, Wilton
 Road
 Dawkins, T., Bedford St. Martin
 Dobson, J., 17, College Street
 Hale, E., 73, Castle Street
 Harris G., Doves Road, Fisherton
 Jerrard & Stevens, 12, St. Mark's Terrace
 Kite, H. J., 23, Wilton Road
 Mitchell, C., Woodfalls, Downton
 Webb & Co., Blue Bear Row, Endless St.
 West, G., 78, Castle Street
 Wilt, E., 155, Fisherton Street
 Wort, 99, Park Street
 Young, W. J. & C. S., 78, Giggat Street

STRATTON ST. MARGARET.

Looker, H.

SWINDON.

Barnett, T., Newport Street
 Williams, J., Devizes Road
 Wiltshire, G., Bath Road

TROWBRIDGE.

Taylor, J.

WARMINGSTON.

Galsford, J.

WESTRURY.

Burgess, J., Station Road

WOOTTON BASSETT.

Flewelling, H., High Street
 Lansdowne, T., High Street

WESTMORLAND.

AMBLESIDE.

Backhouse, T.
 Dacre, W.
 Hawkrig & Jackson
 Newton, Thos.
 Stainer & Son

KENDAL.

Compton, S. (Joiner, &c.)
 Hine, T. & Son (Masons and Builders)
 Hutchinson, W. (Joiner)
 Hutton, E. (Mason and Builder)
 Nelson, E.
 Pattison, A.
 Thomas, D. (Mason and Builder)
 Twiss, J.

BUILDERS NOMINATED BY ARCHITECTS.

ENGLAND.

WINDERMERE.

Armstrong H. B. (Plasterer)
 Atkinson, Messrs (Masons)
 Latham & Dobson (Joiners)
 Moore & Sutt (Painters)
 Pattinson, J. H. (Plumbers)

WORCESTERSHIRE.

ALVECHURCH.

Furber

ASHWOOD BANK.

Huxley, G.

DRIERLY HILL.

Bennett, S. & Son

BROMSGROVE.

Beazier, J., Worcester Street
 Tili, J., Birmingham Road
 Weaver, W., Strand

BROUGHTON, near PERSHORE.

Panter, D., Deakin & Broughton

CRADLEY.

Dome & Son, Cradley Heath

DUDLEY.

Dale & Son, Wellington Road
 Holland & Sons, King Street
 Love & Frost, Cross Street
 Nelson, W. & Son, Wellington Road
 Webb & Round, New Street
 Winstons, W., Old Hill, near Dudley

EVESHAM.

Exley, A.,
 Taylor, F., Merstons Green

HARTLEBURY.

Cook & Son

KIDDERMINSTER.

Hinkley, J. & Son, M.I. Street
 Smith, H., Wolverley
 Thompson, R. J., Park Lane

GREAT MALVERN.

Baker, O., Cowling Gate
 Broad, T., Graham Road
 Eversall, J., Graham Road
 Inwood, J., Beauchamp Terrace
 Levin, J., The Link
 Porter, W., Wells Road

OLD SWINFORD.

Ledbury & Co.

OMBERSLEY.

Brown, E.

REDDITCH.

Hewins, T. & Son
 Sarman, H., Oswald Street
 Yeomans, T., Ipsley Street

STOURBRIDGE.

Freeman, G., Belbroughton, Wat. Stourbridge
 Guest, J. & Son, Brettell Lane
 North, W., Kidderminster Street

STOURPORT.

Vale, T.,
 Ward, J., High Street

TENBURY.

Howells, W.

WORCESTER.

Andrews, J., South Street, Blackhouse
 Beard, J. H., Levee & Grove
 Bennett, W., St. Nicholas Street
 Bourne & Son, Tything
 Bourne, John, Spring Gardens
 Bromage & Evans, 113, London Road
 Compton, J., South Street, Blackhouse
 Inwood, J., Shrub Hill
 Kneadock, J., 28, Lowamoor
 Patrick, W., Bath Road
 Stokes, H., Tybridge Street
 Wilkes, R., St. George's Lane
 Wood & Jemland, Butts
 Wood, J. & Son, The Butts

YARN.

Doughty, H.

WARWICKSHIRE.

ASTON, BIRMINGHAM.

ALCESTER.

Briggins, J.,
 Stanley, J., Broom

BARFORD.

Shasby, W.

BIRMINGHAM.

Barclay, J. & Son, 104, Rynd Street
 Bant, W., Rivers Street, Loddills
 Biggs, J., Faux Street
 Bissett & Sons, Colmore Row
 Bloom, W., 120, Alma Street
 Bowen, J., 17, George Street, Balsall Heath
 Brown, E., Albert Street, Stockland
 Chaffer, W. H., Warstone Lane
 Charley, W., 50, Vaughton Street, South
 Elvins, T., Naden Road, Soho Hill
 George, W., Bristol Street
 Gibby, E., 10, South Road, Camp Hill
 Gowing & Ingram, Balgrave Road
 Hancock, W. H., 328, Moseley Street
 Hopkins, W.

Hughes, Thos., Rockley
 James, J., Grace Road, Sparkbrook
 Jeffrey & Son, Fosse Street, Lawley Street
 Lead Thos., Selly Oak

Lilly & Evans, 147, Great Charles Street
 Mills, T. & Son, Leopold Street
 Moffatt, J., 64, South Road, Camp Hill
 Moorhouse, J. E., Westminster Road,
 Handsworth

Nades & Sons, 51, Livery Street
 Parker, J., Conybere Street
 Partridge, W., 238, Monmouth Road
 Rowbottom, Thos., Coventry Road
 Sapient, W. & Son, 90 & 91, Camden
 Street

Simple, Thos., Lionel Street
 Smith, Thos., 21, Charlott Street
 Smith & Son, Great Tindal Street, Lady-
 wood

Seaford, W., 281, Bloomsbury
 Spokes, G. T., Sherrick Street
 Stannard & Son, 24, Great Colomane Street
 Taylor, S., Mill Lane, Bradford Street
 Toft, W. J., 111, Monmouth Road

Trauham, G., Broad Street, Corner
 Twigg & Son, Sauerdon Street
 Webb, W. & J., 246, Great King Street
 Webb, J., 216, Villa Road, Handsworth
 West, W. H., 17, Lodgegate Hill

Whitehouse, B., 110, Monmouth Road
 Woodward, H. J., Cox Street West, Balsall
 Heath

Whitall, W. J., 83, Lancaster Street
 Wilson & Son, 164, Soho Hill, Handsworth

COVENTRY.

Cave, J., Little Park Street
 Garlick, C., 130, Fox Gooseford Street
 Gidley, T. G., Earldon
 Hylam & Coles and, Earl Street
 Haywood & Co., 21, Goddard Street
 Henshaw Bros., Goddard Street
 Hild, C. G., 128, Much Park Street
 Jaffe, J., Junr., Hood Street
 Leggett, J., Spon Street
 Makepeace, J., Bishop Street
 Mayo & Son, 44, Much Park Street
 Storer, G., Dale Street, Cape Street
 Vale, S., Spon Street
 Waters, A., Harroll Lane
 Wincott, A. A., Hood Street
 Worwood, J., 116, Much Park Street
 Wootton, K., Jennet Street

FOLESHILL.

Isaac, J.

HARBORNE, near BIRMINGHAM.
 Goodman, J., Station Road

KENILWORTH.

Dell, Carle End
 Ball, W., Abbey Hill
 Smith, K. & Son, Rosemary Hill

LEAMINGTON.

Bailey, T., Clarendon Avenue
 Blofield, W. G. & Son, George Street
 Bowyer, R., Tavistock Street
 Felt, J., Bedford Street
 Harrienside, J., Kenilworth Street
 Lee, F. W., Gay Street
 Kell, J., 4, Clarendon Street
 Smallman, B., Russell Terrace
 Smith, G. F. & Son, Union Road, Mil-
 verton

RUGBY.

Forster & Dickson, James Street
 Lysnall, R. & Son, Railway Terrace
 Furnell, Birmingham Street
 Watson, C., Napton

SMETHWICK, near BIRMINGHAM.

Harley, J., & Son
 Marsden, G. H., Hawthorne Street

SOLIHULL.

Bragg Bros.,
 Deebank, J., & Son

STRATFORD-ON-AVON.

Callaway, J., Shettery Road
 Ebbell, W.
 Greenway, J., Ely Street
 Greenway, W., Schoars Lane
 Harris, J.
 Ham,
 Kennard
 Kibler, C., Tiddington
 Piss, W.
 Wainley, Geo., Sootery Road
 Wingham, W., Alveston

SUTTON COLDFIELD.

Jones & Lloyd

WARWICK.

Cashmore, J. H. & T., Smith Street
 Chaplin & Sons, Smith Street
 Robbins, W., Coten End
 Tallon, E., West Street

WELLSBOURNE, *near* WARWICK.

Kibler, J.

WOOTTON WAIVEN, *near* HENLEY.
 IN-ARDEN

Smallwood, J. & Co.

YORKSHIRE.

BARNESLEY.

Dyson, W., Kingstons Place
 England, G., Sanger Lane
 Hutchins, H., Victoria Street
 Lawson, C., Duke Street
 Moore, A., Victoria Street
 Robinson & Son, Eldon Street
 Rymer, G., Dodworth Road
 Smith, J., Claver
 Squire, S., Sheaf Road
 Taylor, E. R., 155, Doncaster Road

BATLEY.

Baines, S. S., Dark Lane (Mason and Builder)
 Brooke, H., Bradford Road (Joiner and Builder)
 Chadwick & Son, Staincliffe (Joiners and Builders)
 Cresswell, S., Bradford Road (Plasterer)
 Field, R., Branch Road (Joiner and Builder)
 Goodall, C., Russell Street (Mason)
 Jessop, C., Cross Bank (Plumber and Glazier)
 Kaye & Seaton, Old Mill Lane (Joiners and Builders)
 Mortimer, J. & T., Carlinghow Lane (Mason)
 Oldroyd, J. & T., Hazover Street (Masons)
 Robinson, C. T., (Mason and Builder)
 Senior, J. H., Wellington Street (Plumber)
 Waller, S., Upper Road, Batley Carr (Plumber and Glazier)
 Wakeham, J., Commercial Street (Plumber)

BEVERLEY.

Barnes, J., Minster Moorgate
 Calvert, E., Wood Lane (Joiner)
 Constable, J., Newbegin
 Elwell, J. E., North Bar (Art Joinery and Carving)
 Oxley, J., Walker Gate (Bricklayer)
 Papa, G. & R., Eastgate
 Sykes, T., Wood Lane (Bricklayer)
 Whitton, M. L., North Bar Street

BRADFORD

Ackroyd, T., Manchester Road
 Bridget, J., Idle
 Beauland, J. & W., Bradford
 Binas, W. & H., Henry Street
 Burnley, T. & Co., Infirmary Street
 Berrup & Son, Cross Lane, Great Horton
 Berkby, H. & Son, Wyke
 Clift, J. & Co., Leeds Road (Ironfounders)
 Cordingley & Sons, Thorncliffe Road (Plasterers)
 Deacon, J., Shipley
 Deacon, H., Horton Lane (Plasterer)
 Farnish, W., Northfield Place
 Hammond, J. & J., Four Lane Ends
 Haley, E. & W. H., Thornton Road (Ironfounders)

Haigh & Slater, Sisterhills Road (Plumbers)
 Harland, F., Manor Row (Painter)
 Hill, A., Spring Row (Slater)
 Heap & Walker, Tyrell Street (Ironfounders)

Holmesworth, W., Woodroff Road
 Haigh, T., Alerton
 Hill, R., Westgate (Plumber)
 Hill & Nelson, Edmund Street (Slaters)
 Hueller, H. & Co., Westley Hall
 Holson, S. & Son, Idle, near
 Humphreys & Moulson, Little Horton
 Illingworth Bros., Thorncliffe Road
 Jackson, S., Calverton Street
 Johnson, W., Bowland Street
 Leggett & Co., Market Street (Ironmongers)
 Lynn, J., Manningham Lane
 Moulson, J. & Son, Bower Street, Manchester Road

North & Sons, Idle
 O'Bank & Sons, Thackley, Idle
 Oddy, S. & Son, Market Street (Painters)
 Peel, H., Duffley Hill Road
 Pratt, J. W., Rye Lane
 Punsfield, V., Bello Vase Quarry
 Scott, J. E., Undercliffe
 Taylor & Parsons, Bank Street (Ironmongers)
 Thornton, J., Leeds Road, Thackley
 Toop, J., Stephenson Fold (Plasterer)
 Toothill & Balmforth, Spicar Street
 Totty, W., Manningham, Victoria Terrace
 Walton & Brier, Manningham Lane (Plumbers)
 Wilkinson & Dawson, Bowland Street
 Wilson, H., Forster Square (Ironmonger)
 Wilson, J. & Sons, White Abbey Road
 Wilkinson & Kallott, 20, Copley Street, Horton

BRIDLINGTON QUAY.

Rensard, J.

BRIGHOUSE.

Beckwith Bros. (White Smiths)
 Bottomley, T., Railway Saw Mills, Raistrick
 Bottomley, J., (Mason)
 Brooks, W. (Plumber & Glazier)
 Denham & Sons (Ironfounders)
 Emmott, J. (Stone Mason)
 Hipponstall, C. (Plasterer)
 Lawson, J. (Plumber)
 Smithies, J. (Slater)
 Sykes, B. & Son, Park Street (Joiners)

BROUGH.

Goodwill, T., South Cave

CALVERLEY.

Frier, W. (Joiner)

CLAYTON.

Booth, M., Fox Brow

CLECKHEATON.

Cressland, W., Westgate (Joiner)
 Hildesworth Bros. (Masons)
 Hurst, J., Moor End (Mason)
 Isherwood, W., Westgate (Joiner)

DARNALL.

Whittingham, T., Station Road

DELPH, *wa* OLDHAM.

Broadbent, I.
 Wisterbottom, C.

DEWSBURY.

Brier, Sons & Wilson, Saville Town
 Chadwick, E. & Son, Staincliffe
 Coop, S., Clarke Street (Bricklayer and Asphalter)
 Firth & Sons
 Fothergill & Schofield, Batley Cart (Joiners and Builders)
 Thompson, W. R., (Slater)

DONCASTER.

Anelay, W., Silver Street
 Arnold, H. & Son, Printing Office Street
 Atterton & Gill, Nether Hall Road
 Johnson, W., Printing Office Street
 March, Thomas
 Worsley, B., Nether Hall Road

EGGLESHELL.

Richardson, J. (Slater)
 Thornton, T. & A. (Slaters)

ELLAND.

Crowther, J. E., Purland Street
 Wilson, J.

FEWSTON.

Patrick, T.

GOOLE.

Jackson Bros.

GREENFIELD.

Bradbury, T.
 Byrom, A.

GRIMSBY.

Simmons, T., Wellow

HALIFAX.

Ackroyd & Mills, Gibbet Street (Plumbers and Glaziers)
 Bancroft & Sons, Winding Road (Slaters and Plasterers)
 Berry, J., New Bank (Ironfounder)
 Bann, J., King Cross Street (Painter and Decorator)
 Bolton, J., Gibbet Street (Plumber and Glazier)
 Charnock, J., & Son, Pelton Lane
 Collicis, J., Carlton Street (Slater and Plasterer)
 Dyson & Son, King Cross
 Fielding & Bottomley, South Parade (Joiners)
 Furness, E., The Edge, Greenland
 Gaine, W. & Son, Stationary Street
 Carpenters and Joiners
 Greenwood Bros., Mount St. (Concreters)
 Hanson, J., Claremont (Carpenter and Joiner)
 Hitchin, I., King Cross Street
 Holdsworth, J., Corporation St. (Plumber and Glazier)
 Jenkinson, H., Queen's Road (Mason)
 Kershaw, J., Hebble Bridge (Mason)
 McLaughlin, J. S., Parkinson Lane
 Mulgait, W. St. James' Road (Painter and Decorator)
 Mitchell, T., Warley, near (Mason)
 Naylor, E., Hammond St., Parkinson Lane
 Naylor, J., Russell Street (Plumber and Glazier)
 Oates, R., Claremont (Mason)
 Puckles, J. & Son
 Riley, R. & T., Adelaide, Greenland
 Rusworth & Firth, New Bank (Slaters and Plasterers)
 See & Son, Broad Street (Painters and Decorators)

BUILDERS NOMINATED BY ARCHITECTS.

[ENGLAND.]

Stafford, R. P., King Cross Street
(Plumber and Glazier)
Sutcliffe & Son, Sowerby Bridge (Masons)
Townsend, G., Gubbit Hill (Joiner)
Wadsworth, S. & Sons, 17 & 19, Carlton
Street (Carpenters and Joiners)
Wilson, J. W., & Son, Gladstone Road
(Masons)

HARROGATE

Birkenshaw, W., Frankland Road
Blackley, J., Robert Street
Dickinson, D., High Harrogate
Dickinson, L., Mayfield Grove
Hornar, J., Mayfield Grove
Holmes, G., Cold Bath Road
Linsell, T., Regent Parade
Rainforth & Hudson, Strawberry Dale
Simpson, D., Low Harrogate
Simpson, J., St. Mary's Road
Smith, A., Cold Bath Road
Topham, W., Walker Road
Walls, D., Low Harrogate
Whitcup, R., Frankham Mount

HESSLE

Freest, E. (Bricklayer)

HEADINGLEY

Wood, B., St. Michael's Road

HECKMONDWICK

Allatt, J. B., Jersey Lane (Mason)
Bailey, J.
Brook, J. (Plumber)
Gledhill, H. L., Jersey Lane (Plumber)
Granger & Cookson, Jersey Lane (Plasterers)
Greenwood, J. B. (Plasterer)
Horsfall, R., Mill Bridge, near
Horsfall, G., Mill Bridge, near
Mann, G., Jersey Lane (Joiner)
Milnes, W. & T., Jersey Lane (Joiners)
Oldroyd, W. (Mason)
Parker, W., Top of Jersey Lane (Plasterer)
Preston, G.
Thornton, J. M., Top of Jersey Lane
(Slater)

HELSLEY

Todd, J. & E.

HIPPERHOLME

Mitchell, S.

HOLNFIRTH

Brown & Shaw, Ribblesdale (Joiners and
Carpenters)
Mansfield, F. & Sons, Bingley Quarries,
Halmbeck (Masons and Quarry
Owners)
Shaw, J., Son & Co., Huddersfield Road
Thorp & Mollison
Turner, W., Underbank (Masons & Quarry
Owner)

HORBURY, near WAKEFIELD

Wainwright, J. (Mason and Builder)

HORSFORTH

Whitaker Bros.

HUDDERSFIELD

Bates, S., Leadley, near
Bakewell & Hollins, Fountain Street (Joiners)
Brook, M., Leeds Road North
Garier, G., Market Place
Graham, A., Manchester Road
Graham, D. & Nephew, Moldgreen
Graham, B. & Sons, Polly Hall

Hirst, B. & Sons, Spring Street
Hollingsworth & Son, Moldgreen
Holland, H., New North Road
Jowett, W. E., St. John's Road (Plasterer and
Slater)
Kendal, S. (Painter)
Lockwood, W., Gilear, near
Malinsworth, W. & Sons, Lockwood
Radcliffe, W. & Co., St. John's Road
Radcliffe, J. & Sons, St. John's Road
Ramsden & Marsden, Paddock
Seed & Kaye, Vachell Street
Sticks & Sons, Berry Row
Varley, J. & Son, Skathwaite, near
Wood, T., Moldgreen (Mason)
Wood Bros., Stable Street

HULL

Bayes, T., Basford
Bevers, R., St. Luke Street
Blackburn, F., 61, Peel Street
Bibby, F., St. George's Road
Brown, A., Holderness Road
Cannidge, T., North Frodingham
Colley & Levitt, Holderness Road
Dartley, A. J. & Son, Spring Street
Drury, J., Langdale Buildings, Beverley
Road
Finch, G., Trippett Street
Garbutt, J. W., Linnaeus Street
Gosset, T., Brunswick Avenue, Beverley
Road
Grasby, H., Camberland Street
Hall, F., 35, Mayfield Street, Spring Bank
Harper, M., 41, Brunswick Avenue
Hatchell, H., Crutcher Street
Houston, G. & Baker Street
Houston, J., Vicar Lane
Huckney & Liggins, Great Union Street
Hunscock, J., Waterloo Street
Huddershaw, R.
Jackson, G. & Son, 36, Witham
Kirby, R., North Ferryby
Loggitt, H., Great Union Street, Drypool
Lion, W., Purbeck Street
Marada & Hodson, Fish Street
Matthews Bros., Walker Street
Musgrave, B., Wilmington Road
Pantec, G. H., Great Thornton Street
(Mason)
Puncheon, E., Little Queen Street
Richardson, R., Thomas Street
Robinson, J. R., Freehold Street
Skinner, J. T., Wright Street
Simpson & Malson, Great Thornton Street
Southern's Executors, 18, Weight Street
Stanley, A. W., Anlaby Road
Sweeting, F., Beverley Road

IDLE

Obank & Son
Greenhow & Sugden, Lawholme Lane
Hird, T., Knowles Park
Holmes, W., Spence Street
Moore & Lund, Beesfield
Robinson, H. V., Enfield Street
Verity & Shuttleworth, Low Bridge Works

LEEDS

Appleyard, Bros., Bramley, near Leeds
Akinshaw, H. & Son, Carlton Mill
Armstrong & Hodgson, Camp Road
Biss, J. R. & Son, Raglan Road
Barnes, G., Warley Lane
Chandler, T., Tanfield, Bedale
Cros & Carter, Bowman Lane
Craven & Umpeby, Hartley Hill
Evans, W., Skinner Lane

Oakes & Son, Anchor Street, Haslet
Frank & Evans, Skinner Lane
Gould & Stevenson, Hildridge Rd., Haslet
Hassam, T., Raglan Road
Holmes, G., Skinner Lane
Hutton & Sons, Albion Street
Hutton, W., Fulwell, near Leeds
Irwin, W. & Co., Burley Road
Isell & James, Joseph Street, Haslet
Lax, W. & H., Rawson Terrace, Dewsbury Rd.
Lester, O., Ilkley
Langley Bros., Hunslet, Leeds
Mason, B., Barrack Street
Mounsey, W., Peel Place, Barley
Myers, C., Institution St., Woodhouse St.
Nicholson, W. & Son, 9, South Brook Street
Pickles, Bros., Neville Street
Pickard, J., 10, Dorchester Street
Puffitt, P., Church Street, Haslet
Simpkins, W., Joseph Street, Haslet
Snarler, Tenbridge Street
Torpe, J. H. & Son, Howman Lane, Haslet
Tomlinson & Son, Front Row, Victoria Rd.
Thompson & Son, Chapel Road
Varley, Barley
Walker, E., Tong Road, Upper Wortley
Wilby, J. & Son, Wellington Road
Wilson, J. W., North Street (Plumber)
Wilson, W. & Son, Headingley
Wood, T., Padsey, near Leeds
Wood & Sons, St. Mark's Terrace
Wood, J., Colburn Street
Wright, J. T., Harley Hill

LIGHTCLIFFE, HALIFAX

Crosley, Horwidge, (Mason)
Lewson, T. (Mason)
Woodhead, M.

LIVERSEDE

Cowburn, J., Millbridge (Joiner)
Drake, A., Millbridge (Mason)
Furness, J., Highgate (Plumber)
Horsfall, G., Millbridge (Mason)
Lucas, T., Millbridge (Plumber)
Moore, G., Littleclough (Joiner)

LUDDEN

Croftree, L. (Plumber and Glazier)
Allerson (Slater and Plasterer)

LUDDENFOOT

Pickles (Mason)
Robinson (Carpenter and Joiner)
Alderson, J. & Son (Plumbers and Glaziers)
Robinson, J. (Slater and Plasterer)

MALTON

Barnes, A., Cemetery Road
Brown & Oldfield, Low Street
Doddsworth, M., Yorkedgate
Hodgson, T., Greengate
Prest, R., Wood Street, Norton
Wilson, W., Wood Street, Norton

MASBORO' ROTHERHAM

Appleyard & Sons (Joiners & Builders)
Bywater, O. (Joiner & Builder)
Caudwell & Co.
Earsshaw, W. (Mason & Builder)
Hardy, W. & Sons (Timber Merchants)
Johnson, T. (Joiner & Builder)
May, G. H. (Joiner & Builder)
Newsum, H. & Sons (Timber Merchants)
Scott, J. & Sons (Masons and Builders)
Smith, R. (Mason and Builder)
Therley, G. (Timber Merchant)
Thornburn, W. & Son, G. George Street
(Masons and Builders)
Woodhead, G. (Joiner and Builder)

MELTHAM.
Moorhouse & Co., Golder Brow
Pugon, E. & Co., Mill Moor

NEXBOROUGH.
Smith, G. H., Doncaster Road

MIDDLESBROUGH.
Allison Bros., Marsh Road
Benthamite R., Harrington Road
Doughly D., 23, Milton Street
Johnson, J., 64, Acklam Terrace

MIRFIELD.
Barker & Clough, Easthope (Joiners)
Lewis, B., Stocks Bank (Plasterer)
M. Iner, W. & L., Lowlands (Masons)
Roberts, H., Knowle Road (Painter)
Walker, E., Station Road (Painter)

MYTHOLMROYD.
Kershaw, J. (Carpenter and Joiner)
Greenwood, G. (Plumber and Glazier)

NORTH ALLERTON.
Bratton, W., Bishdale
Foggins, J. (Joiner)
Fowler, F. B. (Plumber)
Gibson & Smith (Plumbers)
Horne, E. (Plumber)
Pearson, R.
Wilmington, T. & J.
Wilson, J. (Joiner)

OTLEY, near KEIGHLEY.
Cawood, F., Gay Lane
Hilary, W. & Sons
Mason, T., Westgate
Mason, W., Westgate
Smith, A. & J.

OSSETT, near WAKEFIELD.
Horsnell & Head (Joiners)
Lockwood, A. (Mason and Builder)

PICKERING.
Yeansley, T.
POOLE.
Kaye, S.

QUEENSBURY.
Firth, M., & Son

RAWDON.
Harg, R. (Mason)
Treford (Plumber)

RIPON.
Mitchell & Webster, Hecklar Houses

ROTHERHAM.
Adams, G. (Joiner and Builder)
Fox, O. (Joiner and Builder)
Green, C., & Whorcliffe Street
Hodkin, J., Farnwell
Hutchinson, J. (Joiner & Builder)
Loraby, W., South Anston
Rupley, A. T., Percy Street
Srivastava, H. (Mason and Builder)
Smees, W., 45, Nelson Street
Slawson, C. H., Rotherham
Slawson, J., Rotherham
Snell, R., 11, Fitzwilliam Road
Wentley, J., Drummond Street (Joiner and Builder)

SALTBURN-BY-THE-SEA.
Dickinson, T.

SCARBOROUGH.
Adamsen, W. E., Carle Road
Barry, J., Warlock Works
Bland, J., Aberdeen Walk
Bland, S., Bar Street (Plumber)
Jaram, J., Gladstone Street
Jewsey, W., Victoria Street
Maynard, D., Dean Street (Plumber)
Pearcock, W., Pembroke House
Paddy, J. & Son, Trinity Works
Petch & Fox, Victoria Road

SELBY.
Foster, D., Millgate
Foster, H., Water Lane
Gregory, B., Burn near
Smith, J., Ousegate
Ullaherrie, J., Millgate

SHEFFIELD.
Ashton, A. 45, Crookes Road
Ash, Son & Higgins, Tudor Place
Allatt, W., Clifton Works
Armistead & Vasey, Sharrow Lane
Bassett, W. & Sons, Gail Street
Brumby, H. L., Alderson Road
Carr, G., Carlisle Street
Chambers, J. & Son, Pond Hall
Chadwick, C., Victoria St., Glossop Road
Crooks & Son, Darnley Street
Fidler, J., 8, Chesterfield Road, Eckington
Forsdell, W. & A., 34, St. Mary's Road
Grappson, C., 65, Broomhall Street
Hawley, T. & J., Penistone Green
Holmes, H., Hanover Street
Ingram, G., 153, Attercliffe Common
Longden & Son, 22, Newstead Lane
Lister, J., Aston, Rotherham
Loxley, H. & Son, Corporation Street
Morton, J., 107, John Street, Bramall Lane
Powell, R. & Son, Cavendish Street
Proctor, J., Hillsboro'
Robertson, J., Broomhall Road
Smith, A., 300, Broomhall Street
Spick, J., Oxford Road
Wheat, J., Fitz street Road

SHIPLEY.
Ives, W., & Co., Gateland Works
SOVERBY BRIDGE.
Sutcliffe, W., Tall Lane
Turner, J., Warley

STOCKPORT.
Meadows, T. & W.
SOUTH STOCKTON.
Smith, W., Mandal Road
SWINTON.
Bower, C.
TEKEY.
Cowling, W., Station Road (Joiner)

TINDLE.
Dickinson, J.
UPPER MILL, near OLDHAM.
Hitchcliffe, J.
Whitehead, H. & E.

WAKEFIELD.
Atkinson, S. (Plumber, &c.)
Bagnall Bros., Stanley Road, Eastmoor
(Mason and Brick)
Broadbent & Sons, Kirkgate (Painters)
Brooke, J. (Plumber, &c.)
Craven, E. L., Teal Street (Joiner)
Dehnhelm, F. W. & Co., Drury Lane (Masons and Brick)
Driver, C., Arundel Street (Plasterer)
Elvey, E. A., Regent Street, Belle Vue
Flower, J. S. R. & W., York Street
Goodall, Lister & Goodall (Painters)
Hobson, Belle Vue (Joiner)
Hlongwerth, George Street (Slater)
Judge, W. (Joiner, &c.)
Kirk, E., Chapside (Plumber)
Langton, Charlotte Street
Lloyd, J., Bank Street (Joiner)
Rycroft, C. F., Park Street (Slater)
Storr, S., Teal Street
Squires, C., Primrose Hill (Joiner)
Sutton, G.
Tattersall, T. C. (Plasterer)
Turner, C. & Sons (Painters)
Woulde, J. W., Argyle Terrace, Belle Vue

WHITBY.
Brain, J., Silver Street
Chapman, W., Cliff Street
Clarke, T. W., West Terrace, West Cliff
Christians, J., Normanby Terrace, West Cliff
Langdale, W. & Sons, Eastgate
Lowther, J. W., Cliff Street
Russell, J., Church Street
White, J., Windsor Terrace
Wilderbarn, C., Skinner Street
Winterson, F., Abbey Terrace, West Cliff

WYKE.
Bakby, H. & Son, Sower Hill
Holdsworth Bros.

YEADON, near LEEDS.
Fitter, A. (Plasterer)
Fletcher, J. & Sons
Hastler, W. (Joiner, &c.)
Lamb, T. (Plumber)

YORK.
Barry, T. P., Groves Lane
Bellerby & Son, Hungate Saw Mills
Biscomb, J. & T., Lens Street, Hungate
Biscomb, J. 7, Tower Street
Bowman, R., Layerthorpe
Clark & Ward, Foss Island
Danby, W., Thornton le Clay
Deat, R., Lord Mayor's Walk
Doddin, S., Marketgate (Plumber)
Dunstone, W., 50, Marygate
Hughes, B., Bootham Crescent
Kay, W. S., Aconb
Kidd, G., Spas Lane
Knowles, J. & Son, 55, Middlegate
Lee, J. W. B., St. Mary Row, Bishop HEN
Mansfield, G., Hart's Terrace, Layerthorpe
Milton, J. & Son, Walmgate
Naylor & Birch, Union Terrace
Parker & Sharp, Fleaschill Green
Rawling, T., St. Andrewgate
Simpson, G. & Son, Newarth
Simpson, J. & Son, Percy Street
Taylor, R. W., 10, Lawrence Street
Thorpe, W., Fallow
Volans, J., 13, Fenley's Grove Street
Walker, G., Little Stomgate
Wilson, G., Walmgate

NAMES AND ADDRESSES OF ADDITIONAL BUILDERS IN ENGLAND.

2.—IRELAND.

CO. ANTRIM.

CARRICKFERGUS.

Laverty, H.

CO. ARMAGH.

BELFAST.

Boyd, C., Lonsdale Street
 Corry, R., 100, Donegall Pass
 Corry, J. P. & Co., Princess Dock Saw Mills
 Dixon, T. & Co., Clifton Street
 Fitzpatrick Bros., 3 Great Victoria Street
 Fulton, R. & H., 12 & 14, Cambridge St
 Galbey, W., Hope Street
 Henry, J. & Son, Crumlin Road
 Hewitt, L., 55, Mount View, Crumlin Road
 Kerr, W., Lagan Village
 Lowry, J. & Son, Great George Street
 Martin, H. & J. & Co., Ormeau Road
 McCannessa, W. & Son, Duncairn Street
 McCammond, T., Antrim Road
 McLaughlin & Harvey, York Road
 McMillan, T., Ormeau Avenue
 Smith, J., White Street
 Smith, J., York Road
 Thompson, J. & R., Thompson Place

CO. CORK.

CORK.

Fitzgerald, E., Marina Terrace
 Hegarty, D., Fish Street
 Hill, S., Angelsea Street
 Johnson, R., 13, South Mall
 Lusk, J., Cove Street
 McDonnell, J., Church Street
 McMullen, B., Mary Street
 O'Connell, W., Hanover Street
 O'Flynn, E. & P., Watercourse Road
 Thomas, S., North Abbey Square
 Walsh, T. A., Angelsea Street

FERMOY.

Credon, D.
 Hayes
 Hurley, M.
 Newlead, J.

CO. DOWN.

HOLYWOOD.

Nimick, W.

CO. DUBLIN.

DUBLIN.

Adams, S., 51, Bishop Street
 Bain, J., 4, Harcourt Row
 Beckett, J. & W., Ringsend Road
 Bolton, S. H., 156, Rathmines Road
 Breslin Bros., 27, Raymond Street
 Colles Bros., 5, Clanwilliam Place
 Connolly, T., 24, Upper Doonack Street
 Cunningham, J., 34, Lombard Street
 Goodfellow, J. S., 17, Wentworth Place
 Hall, T. & Son, 624, Harcourt Street
 Hammond, A. & Co., 13, Talbot Street
 Larkin, P. S., 7, Barnfield Quay
 Lidwill, R. P., 25, Great George St., North
 Martin, H. & J., 1 to 12, Grand Canal St.
 Upper
 Meade, M. & Son, 124, St. Brunswick St.
 Mellon, R. E., 24, Brighton Square, South
 Rathgar
 Millard, B., 1, Grantham Street
 Moloney, E., 112, Amiens Street
 Moore, L., 45, Harrington Street
 Moyers, G., Richmond Street
 Pile, J. P., 53 to 57, Great Brunswick Street
 Roberts, W. & A., Grand Canal Street
 Sharpe, H., 12, Dartmouth Road
 Wandlop, T. & Sons, 55, St. Brunswick St.

CO. GALWAY.

ATHERRY.

Broderick, J.

GALWAY.

Brady, J.
 Cleberty, J.
 Emmers, J.
 Fisherty, J.
 Halloran, P.
 Sempie, A.
 Simon, J.
 Sweeney, U.

CO. KERRY.

KILLARNEY.

Nolan, J.

TRALEE.

Healy Bros.

CO. KILKENNY.

KILKENNY.

Cleave, W. K., Archer Street

CO. LIMERICK.

LIMERICK.

Cavanagh, J., Glasthew Street
 Hayes, J. & J., Pary Street
 Maher, P., Westward Road
 Ryan, J. & Son, Thomas Street

CO. LONGFORD.

LONGFORD.

Fee

CO. ROSCOMMON.

ATHLONE.

Lymer, P. & Son, King Street

CO. SLIGO.

BALLISODARE.

Clarence, J.
 MacDonagh, J.

SLIGO.

Kerr, G., William Street
 Maguire, P.
 Morris, P.
 McAllyn, D.

CO. WATERFORD.

WATERFORD.

Hunt, M. & Son, Bernad Street

NAMES AND ADDRESSES OF ADDITIONAL BUILDERS IN IRELAND.

3.—SCOTLAND.

ABERDEENSHIRE.

ABERDEEN.

Bisset, P. & Son, Willowdale Place (Masons)
 Buchan, R., 136, Great Western Road
 Dawson, W., 116a, Stone St. (Carpenters)
 Farquharson, W., Hutcheon Street, West
 (Mason)
 Ferdyn, G. & Co., Hutcheon Street, West
 (Masons)
 Gall & Walker, Richmond Street
 Garvie, J. & Sons, 55, Rose Street (Car-
 penters)
 Gauld & MacKenzie, Gilcomston Park
 Gauld, E., Gilcomston Place
 Henderson, J., 6, Summer Street
 Ironside & Macdonald, 9, Well of Spa
 Mitchell, A. & Co., 53, North Charlotte St.
 (Masons)
 Milne, A., Newfield Road
 McAndrew, D. & Co., 129, Loch Street
 (Carpenters)
 Pringle & Slesor, 7, Thistle Lane (Masons)
 Ross, J., 57, Rose Street
 Smith, L., Smea Square
 Thomson, J., 22, Kidd Lane (Carpenter)
 Watson & Robb, 44, Spring Garden
 Watt & Clark, 23, Princes Street
 Willson, J., Gilcomston Park (Mason)

TURRIFF.

Brady, Square (Painter)
 Daguid, W., Clifton Road
 Datchie, G., Square (Plumber)
 Foydye, A. & Sons, Church Street
 Fowlin, W., Clifton Road (Carpenter)
 Gammack, J. & Co., Chapel Street (Slate)
 Gibson, J., Chapel Street (Plasterer)
 Gillespie, J., Low Hall (Slate)
 Ingram, A., Square (Painter)
 Massie, A., Gladstone Place
 Melvie, S., Schoolhill (Plumber)
 Paterson, J. & Son, Chapel Street
 Ross, A., Church Street (Plasterer)
 Tenison, W., Fife Street (Carpenter)
 Watson, J., High Street (Painter)

ARGYLESIRE.

BALLACHULISH.

McInnes, J.

OBAN.

Cowan, D., George Street
 McDespail & McColl, Crescent Road
 McDespail, J. & A., Cornhill Street
 McColl & Graham, Hill Street
 Mann, D. & A., Breadalbane Street
 Menzies, W. & Sons, George Street
 Stevenson, J., Fingrove

AYRSIRE.

ARDBROSSAN.

Boyd, J., Glasgow Street
 McLean, J.

AYR.

Auld, W., Sandgate (Plumber and Slater)
 Baird, J., 7, Dalbair Road
 Bone, D., Elba Street (Plasterer)
 Clark, D., 74, High Street
 Corrie, J., High Street
 Ferguson, G., River Street
 Hight, J. C., High Street (Plumber and
 Slater)
 Hight, W. & Son, Fort St. (Plumbers and
 Slaters)
 Hunter, A., 12, Dalbair Road
 Jackson, J. & W., 23, Cross Street
 King, A., 29, Sandgate
 Kirkland, D., Melton Road
 Leggat, J., Nelson Street (Plasterer)
 McIlwraith, Cowan & Co., High Street
 McLachlan, J., Dalbair Road
 McLachlan, A. & Son, 64, Dalbair Road
 Menzies, J. & D., 50, Main Street
 Milligan, D. & J., 10, Kyle Street
 Milligan, D., Smith Street
 Mitchell, J., Wallace Street
 Paton, W., Kyle Street
 Paton, R. & Son, Kyle Street
 Stevenson, R., Viewfield Road
 Wylie, A., 82, Green Street

CUMNOCK.

McLachlan, W.

IRVINE.

Armour, J. & Son (Masons and Bricklayers)
 Hall, T. (Plumber, Gasfitter, &c.)
 Jack & Co. (Carpenters and Joiners)
 Johnson, J. (Slater)
 McLachlan, W. & Son (Masons and Brick-
 layers)
 Parker, A. (Carpenter and Joiner)
 Siches, D. (Plasterer)

KILMARNOCK.

Anderson, R. & J., Station Road, Galston
 Boyd & Forrest, St. Andrew Street
 Calderwood, A., John Fienne Street
 Muir, M., Bank Place
 Rome, J., Woodstock Street

NEWNILLS.

Brown, J., Jameson Terrace
 Brown, Lawson & Co., Main Street
 Muir, J., Kilmholm
 Muir, W., Jameson Terrace (Bricklayer)

SALTCOATS.

Young J.

BERWICKSHIRE.

ALLANTON-BY-CHIRNSIDE.

Gilson & Dickson
 Patterson, J.

DUNS.

Clark, A., North Castle Street
 Dods, R., Clouds Street
 Duns, G., West End Cottage, Langton
 Gate Street

EARLSTON.

Rogers, W.

GAVINTON-BY-DUNS.

Couper, J. J.
 Spiers, J.

GREENLAW.

Steele, H.

SWINTON-BY-DUNS.

Smaston & Cook

BUTESHIRE.

ROTHESAY.

Cruikshank, J. (Plumber)
 Duncan, M. (Plasterer)
 Hunter, W., Staffa Place (Mason)
 Leckie, W. M. (Slater)
 McCollum & Marshall (Joiners)
 McKillop, D. (Joiner)
 Morrison Bros. (Masons)

CAITHNESS-SHIRE.

CASTLETOWN, THURSO.

Baillie, D.

HALEKIRK, THURSO.

Innes, W.

LYBSTER, WICK.

Sinclair, J. M.

THURSO.

Bain, P.
 Bain, J., Calder
 Darrand, G., Sinclair Street
 Menzies, G.
 Morgan, J. & Co., Rose Street

WICK.

Finlayson, Alex., Pallisey Town
 Finlayson, Andrew, Pallisey Town
 Millar, W. & J., Kinnaid Street
 Miller, D., Pallisey Town
 Ormman, J., Sen., Papigoe
 Reid, J.
 Tait, J. & Reid, Eastbacks
 Swanson, J., High Street

CLACKMANNANSIRE.

ALLOA.

Carmichael, W. R. & J. (Tillemakers)
 Cousin, G. & T., Leaside
 Glog, J., Clackmannan Road
 Smith, G. & Co. (Ironfounders)
 Thomson, J., Ochoil Street

TILlicOUSTRY.

Phillip, J.

DUMBARTONSHIRE.**DUMBARTON, N.B.**

Barlas, W., Jun
McAulian, J. & Sons
McLeod, W. & Sons
Maie, A.
Minto, J.

HELENSBURGH, N.B.

Joha, J.

DUMFRIESSHIRE.**DUMFRIES.**

Armstrong, J., Dockhead (Joiner)
Crackstone, J. & Son, English Street
Curne, T., White's Row
Glover, J. (Plumber and Decorator)
Grison, S., Charlotte Street
Haldiday, J., 9, Queen Place
Harrison & Robinson, Greyfriars Street
McLachlan, S. & Sons, Vennel
Nouston, J., Greyfriars Street
Thomson, D. & C. W., Raa Street
Thomson, R., Shakespeare Street
Thompson, D. & C. W., Shakespeare Street
(Joiner)
Twining, R., St. Michael Street (Joiner)
Weiss, J., Catherine Street

NAXWELLTOWN.

Bruce, A., Commercial Street (Joiner)
Cairns, S. (Painter and Decorator)
Cassie (Painter and Decorator)
Warwick, J. G., Leirig Cottage
Williamson, J., Terreggs Street (Joiner)

EDINBURGHSHIRE.**BONNYTRIGG.**

Kenchen, R.

EDINBURGH.

Adamson, D., 45, Morningside Road
Ainslie, J., Dabry Road (Plasterer)
Barton, W. & Sons, 11, Forrest Road
(Plumbers)
Beattie, W. & Sons, 29, Fountain Bridge
(Joiners)
Bell, P. & Son, Pitt Street (Ironwork)
Bruce, R. Scott, Gilmore Park
Bruce, R. & Son, 12, Greenide Place
Bura & Bailie, 63, Haverock Street
(Plumbers)
Campbell, W. & Son, 55, Torphichen St.
(Plasterers)
Coe & Co. Ltd., Roseburn St. (Heating
Engineers)
Colville, A., 26, Mayfield Road (Joiner)
Davies & Chisholm, 26, Torphichen St.
Drysdale & Gilchrist, 25, Leith Walk
Gerrard, W., 26, Ivy Terrace
Galaxy, G. & Son, 86, Dunfer Street
(Joiners)
Greene N., Washington Lane (Joiner)
Gunn, W., Washington House, Ivy Road
Greig, D. & Son, 3, Spitalfield Crescent
(Joiners)
Gibson, N., Washington Lane (Joiner)
Hay, J. & C., 97, Waterloo Park
Hastie & Sons, Canning Street
Kirkwood, W. & J., Ammandale Street Lane
(Joiners)
Lennox, W., 26, Torphichen Street
(Plasterers)

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Mackintosh, H., 47, Warrender Park Road
Macdonald, J., 3, Dundas Street (Plumber)
McLeod, N., 25, Polwarth Terrace
McAndrew, G., 18, Chapel Street
McGregor, D. & J., 9, Barclay Place
Mekie, D., 36, Polwarth Gardens
Merrison, J., 10, Bannington Road
Mitchell, J. & Son, Harvie Hill
Morr & Rutherford, Albany Street Lane
(Plumbers)
Morrison & Hume, 13, Dromedary Place
(Plumbers)
Muirhead, J., 7, North St. Andrew Street
Montgomery, H. T. & R., North Mer-
chiston Avenue (Joiners)
Paterason Bros., 234, Cluesway Side
Paterason, H. & Sons, 5, Elm Row
(Plumbers)
Pearson, T., Dabry Road (Plasterers)
Rendall & Pottinger, Christian Bank
Robertson & Cairns, 34, Nicolson Street
(Plumbers)
Roberts, C., 67, Haymarket Terrace
Seraud, W., 22, Ivy Terrace
Shillinglaw, R. & Son, 65, Pitt Street
(Joiners)

Sinclair, P. & Son, Bryson Road
Slater, J., 71, Albert Street (Mason)
Smith, W., 131, West Port
Smith, W. & Sons, South Oxford Street
(Joiners)
Sooden, J., 5, Spottiswoods Street
Stevens, D., 15, Howe Street (Plumber)
Stewart & Ran, 13, South St. Andrew
Street (Plumbers)
Sisart & Co., 5, Torphichen Place
(Plasterers)
Sutherland, D. & Sons, 64, Inverleith Row
(Joiners)
Thomson, R. & Son, 26, Buccleuch Street
Tweedie, R. & Co., 6, Gillespie Street
Walker, J., 24, Morrison Street
Wetherston, J. & Son, 29, Queensferry St.
(Joiners)
Watson, W., Morrie Place, Leith Walk
Watson, W. & Sons, 18, Morningside Road
White, A., 20, Grove Street
White, J., 12, South St. Andrew Street
(Plumber)

Younger, J., 65, Leeward Street

LEITH.

Anderson, S., Coburg Street (Slating and
Tiling)
Baxter, W., Dock Street
Hadden & Son, Constitution St. (Painters)
Henderson & Wilson, Charlotte St. (Joiners)
Liddle, R., Constitution Street
McIntosh, J., Bonnington Road
Ogilvie, A., Duke Street (Slating and Tiling)
Sanderford, W. M., Mitchell Street (Joiner)
Scott & Davis, Marine Street (Plasterers)
Shanks, R., Ferry Road
Sutherland, J. S., Charlotte St. (Plasterer)
Tait, A., Constitution Street (Painters)
Traill, R. & Co., Bonnington Road (Iron-
workers)
Ward, H., Coburg Street (Plumber)

MUSSELBURGH.

Bisset, R. & Sons, Millhill (Masons)
Duncan, W., Millhill (Joiner)
McEwan, A. & P., Grove Street (Slaters)
Ness, D., Haga Street (Plumber)

MURTHLY-BY-PERTH.

Duncan, W. & C. (Masons)

ELGINSHIRE.**ELGIN.**

Alton, A., Queen Street
Dunbar, A. & R.
Forcyst, D., Cullard Street
Watt, A. & W., Seafield and Moray St.

FORRES.

Laing, A.

FIFESHIRE.**ST. ANDREWS.**

Carrivair, A. & J., Argyle
Cunningham, A., Greenside Place
Harris, T., Klamersburn
Law, H., South Street
Liddell & Lowden, North Street
Ness, W., South Street

STRATHKINNESS-BY-ST. ANDREWS.
This, D.

FORFARSHIRE.**BROUGHTY FEERY, near DUNDEE.**

Bennet & Taylor, Lawrence St. (Masons)
Brown, J., 62, Brook Street (Plumber)
Clark, T. S.
Gray, W., Brook Street (Plumber)
Lorimer, P., 176, Brook Street (Plumber)
McLeod, R., King Street (Plumber)
Murray, W., Brook Street (Plumber)
Scott, J.

BRECHIN.

Baxter, J., Park Road
Black, W. & Son, Clerk Street (Joiners)
Bruce, W., South Kirk Street (Joiner)
Coulis, J., Union Street (Joiner)
Crabb, J., South Kirk Street
Crookall, A., Andover Cottage, Montrose St.
Cuthbert, G., Union Street (Plumber)
Dures, J., Damcar Road (Joiner)
Farquharson, G., Channery Wynd (Plas-
terer)
Gibson, J., South Kirk Street (Plasterer)
Kinnear, J., 30, Market St. (Plumbers)
Middleton, E. & Son, Market St. (Plumbers)
Ogilvie, G., Montrose Street (Joiner)

CARNGUSTIE.

McKay, D., Sea Lane (Plumber)
Robertson & Skid, Dundee Street (Masons)
Watt & Shyde, East Pier (Joiners)

DUNDEE.

Adam, J. & Son, 15, Park Place
Alexander & Son, 25, Brown St. (Slaters)
Anderson, W., Esplanade
Benn & Ramsey, 20, Watt Street (Joiners)
Baxter, J., Seaport Lane (Plasterer)
Brown, D., 55, South Tay Street (Plumber)
Brown, J. & Son, 15, Main Street (Masons)
Brown, W. & R., 55, Small's Wynd
Brommer, A., 3, Fettes Lane (Joiner)
Bruce, J., Prospect Place, Loches (Mason)
Butler, A., 37, Hawk Hill (Slater)
Cable, T., 68, Wilson Place, South Road,
Loches
Cairns, D. W., 51, North Wellington Street
(Joiner)
Crichton, J., 111, Cowgate (Plumber)
Dunlop, J. & W., 134, Strathmarine Road
(Masons)
Dodd, J., 25, Wellgate (Joiner)
Duncan, A., 9, West Bell Street
Farquharson, J. & Sons, 36, Barrack Street
(Plumbers)

BUILDERS NOMINATED BY ARCHITECTS.

[SCOTLAND.]

Fyffe, J., 95, Northbridge (Plumber)
Fyffe, J. W. & Co., 14, Bank St. (Slater)
Fyffe, W., 30, Blackness Road (Slater)
Garvie & Farquharson, 46, Balguy Street (Joiner)
Gard & Laburn, 61, Constitution Road (Slater)
Gentle, J., 63 Commercial Street (Mason)
Gregory, J. & Son, 38, Tay Street (Joiners)
Hay, J. & C., 14, Long Wynd
Hodge, D., 124, High Street, Leith
H. & D., 54, Victoria Road (Plumber)
Hodg. D. & Son, 30, Mid Street
Kidd, P. & Son, Arnsfield Street
Kyd, R. P., 30, Albert Street (Joiner)
Laine, R., 84, High Street (Mason)
Laburn, J., 47, Constitution Road (Plasterer)

Laburn, J. & Son, 2, Dalfield Terrace (Slater)
Laburn, J., 28, Bellfield Street (Slater)
Lawless, M., 22, Hearn's Lane (Plasterer)
Lickley, R., 230, Perth Road (Joiner)
Lindsay, J., Soapmaker Lane (Slater)
Manually, T., 6, Park Place (Joiner)
Mackie & How, 11, Calderon Street (Joiners)
Marun & Gibson, 22, Bell Street (Plasterers)
Martin, D., 73, Victoria Road (Slater)
Micheal, W., 69, Cowgate (Plumber)
Micheal, D., 97, 100, Seagate (Plumber)
McNab & McKislin, 49, Forbank Road (Joiners)

McBeth, D. & Son, 30, Raglan Street (Plasterers)
McKintosh, A., 29, Temple Lane (Plasterer)
McNall, A., 10, Clegburn Street (Mason)
Norwell, W., 91, Commercial Street (Plumber)
Nuchter, P., 78, Bell Street (Plumber)
Ogilvie, A., 29, Constitution Rd. (Plasterer)
Overston, J., 12, Ward Road (Plasterer)
Philip, W., Jun., 105, Seagate (Joiner)
Tollock, J., 6, Ogilvie's Road (Joiner)
Petter & Jamieson, 18, South Union Street (Painters)

Pewrie, J., 83, Hawthill
Ramsey, D. & Co., 39, Trades Lane (Plumber)
Ramsey & Reid, 17, Wallygate (Slater)
Robertson, J., 128, Princes Street (Plumber)
Scott, J., 730, Leith Road (Joiner)
Shaw, J. F., 5, Lowlands Alley (Joiner)
Sheehy, R., Jun., 28, Meadowside (Mason)
Stephenson, W., 29, Cuthbert Street (Mason)
Stephenson, W., Ladywell Place
Svensson, L. K., Ladywell Place (Mason)
Stewart, A., 8, Sea Wynd (Joiner)
Stewart, J., 8, South George Street (Joiner)
Stokes, T. C., 20, Crescent Lane (Joiner)
Storrer, A., 247, Hilltown (Slater)
Whitton, A. A., 73, Victoria Road (Plumber)
Will, A., 27, Yeaman Shore (Mason)
Wynd, R. P., Albert Street (Joiner)

FORFAR.

Adams, W., Headingshall Stone
Cargill, J., Cameron Street
McLean, J., 35, North Street
Watkinson, J., 37, Glamis Road

GLONIS.

Joans on J.
MONTROSE, N.B.
Ton, A., John Street (Mason)
Craigie, J. W., Balmala Street
Fetis & Steven, Lower Hall Street (Joiners)
Ford, J. & Son, George Street (Mason)
Heary, W. & Son, Mill Street (Joiners)
Hird, J., 20, Panmure Row (Joiners)
Raid, J. (Joiner)
Raid & Burnett, George Street

NEWTYLE.

Gray, J. & Son (Masons)

HADDINGTONSHIRE.

DUNBAR.

Cunningham, P. & G.
Ritchie, R.

TRANENT.

MacWalter, T., Ivy Cottage

INVERNESS-SHIRE.

INVERNESS.

Alexander & Macdonald, 37, James Street
Anderson, A., Dempster Gardens
Black & Sons, Academy Street
Cameron, F., Grove Street
Cameron, H., 20, Academy Street
Campbell, J., Rustic Cottage, Address Place
Ellis, J.
Fowler & MacLennan, 9, Globe Street
Fraser & Macdonald, Kenneth Street
Gallie, C., Tanners Lane
Innes, A., 6, Friars Place
Macdonald, T., Hilton
Macdonald, D., Bridge Street
Mackay & Maclean, Castle Street
McKenzie, A., Laver Cottage, Kenneth Street
Noble, A., Dancing Street
Robertson & Gillies, Longman Road
Russell, J., Church Street
Tulloch, J., Academy Street

Macdonald, J.

KIRKCOUBRIGHTSHIRE.

DALBEATTIE.

Chit, F., John Street
Clark, W., John Street
Hyslop, J. & S., Sports Mill
Lindsay, A. R. & J., Albert Street
Nish, D. M., St. James Road
Wilson, R., High Street

LANARKSHIRE.

AIRDRIE.

Bell, A. (Plasterer)
Brown, J. (Painter)
Cannock, J. (Painter)
Eadie, R., Graham Street (Carpenter and Joiner)
Henderson, W. (Slater)
Lauden, T., Victoria Saw Mills
McCracken, R. (Brooklayer)
Pateron, R. & Son, Chapel Street (Mason)
Rankine, D. (Plumber, Gasfitter, &c.)
Shanks, W. & Son, Fruitfield Saw Mills
Sponson, J. & Son, (Plumbers, Gasfitters, &c.)
Thorn, M. & Co. (Slaters and Plasterers)
Watson, J. & J., Victoria Place (Masons)

COATBRIDGE.

Brown & Gilchrist, Mulryhall Street
Brown, J., 47, Burnbank Street
Guthrie, J., Portland Street
Guthrie, T., Castle Cottage, Colt Terrace
Mason, A., Church Street
Mills, J. & R., Station Road, Langloan

Murray, W. & P., 42, Bank Street
Purdie, W., Greenhill Terrace
Symington, D. K. & H., West Canal Street
Symington, H. & Sons, Dumbeth Road
Saw, G., 11, Water Street
Thomson & Wood, Buchanan Street
Waddell, J., Seaside Street
Wallace & Miller, Dumbeth Road

GLASGOW.

Anderson, R., 190, Dumbarton Road
Anderson, W. & P., Rothwell Street
Anderson, A. & R., 110, North Hanover St.
Anderson & Henderson, 73, Waterloo St.
Barlow & Co., Rethven Street
Baillie, H. S., Duke Street (Plasterer)
Bell, Horsely & Co., 109, Pollokshaws Rd.
Brown, T., 193, Rotten Row
Brace, A., 18, Clarendon Street
Brace, Archd., 73, Cathedral Street (Plumber)
Connell, J., 14, South Colburn Street
Cowan, W. & Sons, 53, Bishop Street, Port Dundas

Crope, J., Rutherglen
Devlin, J., 11, Bethwell Street
Duncan, J., 2, Willowbank Crescent
Eadie, A., 280, Cathcart Road
Farquhar, A.
Farquhar, G., Gardner Street, Wright
Gibson, E., 15, Henrietta Place
Gibb, R. & Sons, 40, Sword Street
Gray, C. & Son, 15, East Street
Gray, A. & G., 30, Bath Street
Groom & McCullum, 11, Bethwell Street
Guthrie & Co., 6, Camberland Street, W.
Henderson, M., 4, Grant Street
Herbertson, J. & Sons, 65, Bedford Street
Hetherington, J. & Co., Colburn Street (Joiners)
Hutchison, D. T., 245, St. Vincent Street (Plasterer)

Hutchison & Grant, Napierhall Street
Laird, J.
Koy, T. & Co., 21, Cathedral Street
Kusner, Mouldie & Co., 27, Alexander St.
Lamb, T., 220, Parliamentary Road
Lightbody, W., 42, Sidney Street
Maben & Co., 65, Edginton Street
Marshall, A. G., 35, Pitt Street
Melis, D., 77, Dumbarton Road, Paisley
Milne, J. & Co., 117, St. Vincent Street
Miller, J., 15, Leven Street, Pollokshields
Morison & Macrae, 11, Clyde Place
Muir, A. & Sons, 400, Edginton Street
Murdock, R., 20, Commerce Street
McAulay, J., 51, Fort Street, Pollokshields E.

McCall, W. & Sons, 54, John Knox Street
McDonald, R., 54, St. Enoch Square
McCallum, D., Jun., 140, Bethwell Street
McFarlane, A. & Son, 81, Cathedral Street
McGregor, W. & Son, 40, Gleadilly Street
McTaggart, H., 50, Mill Street
Pateron, J. & Son, 522, Pollokshaws Road
Parker, J., 60, Blawald Street
Payfair, J., St. Mary's Lane
Reedwick, J., 41, Lilybank Gardens, Hillhead
Ross, G.
Shaw, W. & Son, 44, Wallace Street
Shannon, P., 181, Trogate
Sinclair, J. P., 11, McFarlane Street
Smith, P., 8, Mason Street (Monumental Sculptor)
Smith, G. B. & Co. (Gates and Fence Makers)
Steven, W. & Sons, Leaden Road (Bricklayers)

Stewart, A. & T., Maxwell Road
Tew & Campbell, 11, East Miller Street
Watt & Wilson, 93, Hope Street
Watson, J. & Son, 112, Bath Street

GOVAN.

Hamilton, Marr & Co.

HAMILTON.

Brown & Henderson, Portland Park
Hamilton C. C. Farrell Cottage
Pardie, J., Durbank Road
Turner, J., Portland Place

HIGH BLANTYRE.

Warnock & Waller

LENZIE.

Turnbull, G., Wright

NOTHERWELL.

Park, T. & R., Brandon Street

THORNLIBANK.

Cameron & Dalgligh

UDDINGSTON.

Mackie, W. (Slater)
Morton, J. (Mason)

LINLITHGOWSHIRE.

LINLITHGOW.

Brock, J.

NAIRNSHIRE.

NAIRN.

Squair, J.

PERTHSHIRE.

BLAIRGOWRIE.

Bethart, D., George Street (Mason)
Craigie, W., George Street (Slater)
Doig, T., Rattray (Joiner)
Duncan, T., Rattray (Mason)
Kidd, R., 1, High Street (Plumber)
McRitchie, D., Mitchell Square (Joiner)
Steven, T., 2, Newton Place (Joiner)

COUPAR ANGUS.

Adam, J., Hill Street (Joiner)
Reid, D., Hollybush (Mason)

PERTH.

Annan, J. & Son, Princes Street (Plasterers)
Ballantine, J., 47, Canal Street (Joiner)
Bell, A., Canal Street (Slater)
Beveridge, A., New Row (Mason)
Brand, R. & Son, West Mill Street (Masons)
Buchan, J., King Street (Slater)
Davidson, A., 7, New Row (Plumber)
Fraser & Morton, South William Street (Masons)
Frew, W. & Sons, 6, Mill Street (Plumbers)
Hay, J. & Son, 28 and 30, County Place (Joiners)
Johnstone, P. & Sons, Cow Kennel (Joiners)
Mackie, D. & Co., 22, Cow Kennel (Plumbers)
McCurach, C. & Son, 45, Victoria Street (Masons)
McKay, J. & Son, 7, Kinnons Street (Plasterers)
McLeish, J., 15, Mill Street (Plumbers)
Peebles, J., 32, York Place (Plasterers)
Purrier & Falconer, Victoria Street (Joiners)
Reid, P., 48, Milne Street (Slater)

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RENFREWSHIRE.

BRIDGE OF WEIR.

Dalzell, R. B.
Woodrow, R.

GREENOCK.

Agnew, J.,
Antenhead, R. & Sons, 30, South Street
Crawford & Fulton, Terrace Road
Marquess, B. J., 1, Newton St. (Slater)
McJannet, J., 22, Inverkip St. (Plumber, &c.)
Ramsey, G. A., 26, Nicholson Street
Steel, W., 35, West Stewart Street
Tansock, J., 5, Sir Michael Street (Plasterer)
Took, D., 3, Brogham Street (Slater)
Whitelaw, A. & Co., 76, Drumochter Road (Bricklayers)

JOHNSTONE.

Jaflrey, W. & Sons, Rowden Place
Jaflrey, D. & Sons, 14, Graham Street

PAISLEY.

Barchay, J., Christie Street
Best, D., 21, Wellmeadow (Painter)
Blackwood, M.
Bowie, J., 1, Park Terrace, Underwood Road
Bowie, T. C. & Co., 15, Gilmour Street (Painters)
Bruce, A., Underwood Lane
Bryce, J., 16, Haister Street (Joiner)
Bryce, J. & Co., 69, Broadlands
Cowan & Stewart, 42, High Street (Painters)
Craig, A., 27, Back Seaddon Street (Joiner)
Fraser, J., 84, New Seaddon Street (Plasterer)

Gillespie, J., 84, New Seaddon Street (Slater)
Gillespie, W., 82, New Seaddon Street (Slater)
Girdwood, R. & A., 28, Broadlands (Joiners)
Haddie & Roberts, Gordon Lane
Hunter & Gordon, Canal Street (Plumbers)
Hutchison, D. T., East Natchan Street (Plasterer)
Kerr, G., 28, Orchard Street (Joiner)
Kilpatrick, J. & Son, Dyers Wynd (Plumbers)
Kirk, J., 29, Wellmeadow Street
Miller, W., 38, Caneside (Plasterer)
McDonald, J., 97, George Street
McGhie, W., 35, Great Hamilton Street
McInnes, J. & W., Lady Lane (Joiners)
Robertson, G., 4, New Seaddon Street (Plumber)
Shaw & Stewart, 51, High Street (Slater)
Taylor, W., 12, Lady Lane
Wallace, Connel & Co., 8, Gilmour Street (Plumbers)
Wallace, C., 23, New Smith Halls (Slater)
Watson, D., 12, Wellmeadow
Wilson, R., 20, Greenhill Road

ROSS-SHIRE.

DINGWALL.

Bain & MacLennan, Canonbridge
Cumming, C. & Son, Mason Lodge
Harrow, D., Strathpeffer
Macdonald, W., Tulloch Street
MacLennan, W., Tulloch Street
Macintosh, D., Fairburn

Maclean, W., Mair of Ad
Macrae & MacLennan, Canonbridge
Maris & Fraser, Hill Street
Marchison, J., Trinity Buildings
Rosa & MacLennan, Strathpeffer
Tolmie, J. & W., Canonbridge

INVERGORDON.

Rosa, J.

ROXBURGHSHIRE.

GALASHIELS.

Hall, J. & J.
Hall, R. & Co.
Henderson, A. & Son

HAWICK.

Brown, T., 47, High Street (Plasterer)
Branton, J., Round Close (Carpenter, &c.)
Davidson, W. & Sons, Croft Road (Plasterers)
Grive, W. & Co., 15, Buccleuch Street (Slater, &c.)
Guthrie, J. & Sons, 61, High Street (Slater &c.)
Hobbs, W. & T., 3, Allars Crescent (Carpenters, &c.)
Ingis, A. & Sons, Bridge Street (Carpenters, &c.)
Marshall, J., & Sons, Lethian Street (Masons)
Murray, J., 2, Union Street (Slater)
Scott, A., Union Street
Scott & Thompson, 1, Strivingbank (Masons)
Scott, A., Boarhouse Place (Mason)

STIRLINGSHIRE.

CAMELTON-BY-FALKIRK.

Abercrombie, J. (Mason)
Kerr, J. (Joiner)
McNeill, C. (Joiner)
Scott, J. & W. (Masons)

FALKIRK.

Bishop, R., Pleasance (Bricklayer)
Brown, R. (Plumber)
Cockburn, W. C. (Joiner)
Colquhoun, R., Grahamston (Bricklayer)
Cowan, P. (Joiner)
Dalziel, W., Parkfield (Mason)
Draper, D. (Plumber)
Drysdale, R., Grahamston (Joiner)
Fergie, J. (Joiner)
Gardner, J., Orchard Street (Mason)
Gardner, J., Garrison Place (Mason)
Gibson, R. (Bricklayer)
Gibson & Gray, Bainsford (Joiners)
Happer, J. (Slater)
Lamb, J. (Slater)
Laird, J. & R. (Joiner)
Main, J. & A. (Joiner)
Marshall, W. (Joiner)
Maxwell, J., Melsa Road (Bricklayer)
Miller, J., Grahamston (Plasterer and Slater)
McGregor & Son (Slater)
McNair, D. (Plasterer)
Sutherland, W. & Son, Meaks Road (Masons)
Wallace & Connel (Plumbers)
Walker, J. (Slater)
Weston, W., Grahamston (Joiner)

LARGH.

Reid, J. & A. (Masons)
Reid, A. & R. (Masons)

BUILDERS NOMINATED BY ARCHITECTS.

[SCOTLAND.]

STIRLING.

Bannigan & Fotheringham, St Marys
Wynd
Bert & Simpson, Port Street
Currie, J., Baker Street
Goslay, W., The Craigs
Govan, J., Wallace Street
Headridge, A. & J., Causewayhead
Kemp, A., Dumbarton Road
Rensid, J., Allan Park
Short & Fairfai, The Craigs

ORKNEY ISLANDS.

KIRKWALL

Balke, S. & Son, Junction Road
Cowie, J., Junction Road
Firth, W., Victoria Street
Leonard & Park, Junction Road
Pence, W. B. & Son, Junction Road

STROMNESS

Balke, S., Jnr., North End (Builder)
Robertson, W. (Mason)

SHETLAND ISLES.

LERWICK.

Aitken, J. M., Commercial Road
Aitken, C. W., Burgh Road
Douglas, M., Market Street
Irvine, J., Tingwall
Isbister, W., Market Street
Sinclair, H., Commercial Street
Sinclair & Hardie, Commercial Street
Youngclouse, J., Market Street

NAMES AND ADDRESSES OF ADDITIONAL BUILDERS IN SCOTLAND.

4--W ALES.

ANGLESEY.

BEAUMARIS.

Jones, W. R., Castle Street

HOLYHEAD.

Williams, W., Kingsland Saw Works
Williams, W., Valley

LLANGFNI.

Perry, L., Bodfroid

MENAI BRIDGE.

Owen, D., Glyn Garth Post Office
Perry, E.

BRECKNOCKSHIRE.

HAY.

Powell, E., London House
Price, T., Red Lion Street
Webb, R., Blue Boat Tavern

CARDIGANSHIRE.

ABERYSTWTH.

Williams, R., New Street

CARDIGAN.

Edwards, W., Moor Street
Lloyd, D., Finglas Road

CARMARTHENSHIRE.

BUREY FORT.

Williams, W. T., New Street

CARMARTHEN.

Davies, H., Kistler Terrace
Davies, W., Union Street
Evans, W., Fishpond House, Wanslew
Jones, J. & D., Richmond Terrace
Morris, T., Water Street

PEMBREY.

Griffiths & Christopher
Neaiphant, H., Commercial

CARNARVONSHIRE.

DANGOR.

Humphreys, T. J., Mount Street
Jones, W., Mount Street
Perry, W. & Sons, Castellpa
Roberts, J., 135 High Street
Thomas, W., Garth
Williams, R. & J., The Crescent, Upper Bangor
Williams, E., Garth Road
Williams, W. F. & Co., 224, 226, 228, High Street (Gas and Hot-water Fitters, &c.)

BORTH FORT MADG.

Humphreys, E.

BONT NEWYDD.

Jones, R., Tyddyn deu

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CARNARVON.

Hughes, T., Cwm-y-Glo
Hughes, J., Uxbridge Square
Jones, I., Groeslop, near Caernarvon
Mars, O., 11, Pool Lane
Perry, E., Sengatum Terrace
Roberts, J., 14, Hill Street
Williams, R., Bank Quay
Williams, D., Turkey Shore
Williams, J., 19, Market Street

CRIGGIETH.

Jones, L., Mass
Jones, W., Ormsby Terrace
Jones, R., Corporation Terrace
Perry, O., Railway Inn

LLANDUDNO.

Conway, R., Mistyn Street
Jones, T., South Parade
Owen, T. & J., Gloddalch Street

MORFA NEVIN.

Jones, G., Penrhos

PENMAENMAWR.

Evans, E., Bodawon
Hughes, J., Grosvenor House
Roberts, R., Brooks Cottage

PENYGOES.

Roberts, G., Market Street

PORT MADG.

Jones, W., Snowdon Street
Jones, W., Madoc Street
Williams, G., New Street

PWELHELI.

Jones, J., Salem Terrace
Jones, W. & R., Aia Road
Roberts, S., Aberuch

LLANVINDA.

Jones, D., Mael Vaw

DENBIGHSHIRE.

DENBIGH.

Bartley, S., Henken Place
Jones, I., Town Hill
Roberts, J. S., Bridge Street

JOHNSTOWN (RUABON).

Jenkins & Jones

LLANGOLLEN.

Evans, E.
Evans & Morris, Parade Street
Price, J.
Roberts, M., Berwyn Street

LLANRWST.

Jones, J. B.
Perry, S.

RHOSYLLLEN.

Davies & Son

WREAHAM

Bradshaw & Davies, Gwersyllt
Davies Bros., 2, 3, 4, and 5, Hill Street
Hughes & Owen, Penybryn
Johnson, H. C., King Street
Owen, B., Penybryn
Samuel, W. E., Market Street

FLINTSHIRE.

CONNAH'S QUAY, near FLINT.

Renny, T. J.

MOLD.

Edwards, R., High Street
Probert, E. C., Hope
Roberts, R., 64, New Street

GLAMORGANSHIRE.

ABERDARE.

Morgan, J., Monk Street

BRIDGEND.

Francis, W., Fair Lawn, Colly Road
Jenkins, C. & Son, Saw Mills and Steam
Joinery Works
McGaul, W., Quarrel House
Preece, E., Cowbridge Road

CARDIFF.

Allen, J., 2, Coran Terrace, Cathays
Anderson, M. & W., 9, Christina Street
Beames, G., 16, Violet Row
Billings, J. E., 25, The Parade
Bird, C., 365, Cowbridge Road
Burton, C., Oakfield Street
Davies, D. J., Crews Road
Davies Bros., Fanny Street, Cathays
Davies, D., Catherine Street
Davies, D., 161, Castle Road
Day, R., 30, Mount Stuart Square
Dunn, C. C., Cowbridge Road
Gibben, H., 185, Richmond Road
Gough, T., Oxford Lane, Roath
Haines, J., Cowbridge Road, Canton
Hallett, J., Patridge Road
Hatherly, E. T., 40, Nulisia Street
Jenkins, J., James Street
Jones, Bros., 27, Park Street
Lwin, A., Spring Gardens
Lewis, J., Spital Square
Lock, F. S., 31, Trellian Terrace, Penarth
Road
Milden, S., 268, Clive Street, Grange Town
Parker, W. R. & Co., Great Western
Approach
Price, R., Trellian Ter., Penarth Road
Purnell, L. & F., Galleon Street
Shepton, S. & Son, 15, Sandon Street
Shepherd, C. & Son, Croft Street, Roath
Smith, R., 44, Oakfield Street, Roath
Symonds, W., Roath
Thomas, W., Adamstown Square
Thomas, W. & Co., Colleton Road, West
Bate Dock
Thomas, J., Charles Street
Turner, E. & Sons, Grange Town
Walker, T. A., 94, St. Mary Street

BUILDERS NOMINATED BY ARCHITECTS.

[WALES.

PYNDAL (YSTRADYFODWG).
Morris, M.

LLANDAFF.
Cos, T. & W.

MAESTEG, BRIDGEND.
Evans, E.

MERTHYR VALE.
Rice, T.

NEATH
Baxter, G., Albert Terrace
George, A., Windsor Terrace
Howell, J., Windsor Terrace
Palmer, G., Windsor Road
Thomas, B., Alfred Street

PENCOED.
Griffiths & Matheson

PONTYCYMMER, near BRIDGEND
Francis, W.

PONTYPRIDD.
Griffiths, G.
Griffiths, D., Gelliewastad
Jones, D., 247, Wood Road
King, F., The Grove
Phillips, W. W., Haford, near Pontypridd
Rowlands, D., The Grove
Seaton, W.
Williams, W., Gelliewastad

PORTH.
Jenkins, C. & Sons

PONTYCLOWN.
Morgan, J.

PORT TALBOT.
Rees Bros., Aberavon

SEVEN SISTERS.
Thomas, E.

SWANSEA
B. Jones, H., Oystermouth Road
Jenkins Bros., Beach Street
Marles, J.
Walkins & Jenkins, Brunswick Timber Yard

TŷN, PENTRE (YSTRADYFODWG).
Morgan, Bros.
Parry, W.
Richards, A.

TONYPANDY.
Kendall, H.
Morgan & Williams

TREHERBERT.
Edwards, Broc.

YSTALAFERA.
Rees, D.

MERIONETHSHIRE.

BALA
Jones, E., Mount Street
Roberts, R.

BARMOUTH.
Edwards, D., Marine Parade
Jones, H., Parkington Terrace
Jones & Adams, High Street
Owen, O., Marine Terrace
Williams, W., Parkington Terrace

CORWEN.
Lloyd, R., High Street

CYNWYD.
Willnow, T.

DYFFRYN.
Thomas, D., Dolgan

DOLGELLY.
James, J., (Mason and Builder)
Jones, H., Springfield Street
Jones & Smith (Masons and Builders)
Lloyd, C., Bryn House
Owen, H., Smithfield Street

Owen, W. & J., Vynodol Terrace
Parry, H. (Slater and Plasterer)
Thomas, J., (Mason and Builder)
Williams, H., Penbryn Road
Williams & Roberts (Masons and Builders)
Williams & Jones (Slaters and Plasterers)
Williams, J., (Slater and Plasterer)

HARLECH.
Evans, R.

LLANBEDO.
Evans, H.

TOWYN
Jones, Hughes, and Edwards
Morgan, Bryncreg

FESTINIOG.
Owen, W. S., New Market Square
Owen, O. R., Four Crosses

MONTGOMERYSHIRE.

CARLISLE.
Evans, J.

LLANIDLOES.
Breen, J., Lower Green

NEWTOWN.
Davies, E. & Son, Bridge Street

WFLSHPOOL.
Watkin, A., Timber Yard

PEMBROKESHIRE.

BECELLY, R.S.O.
Waters, G., Thomas Chapel

CRUNWEAR, near BECELLY.
James, Alf., Broomey Lake

OMROTH, BECELLY.
Perkins & James

NARBERTH.
Beaumont, D., Sheep Street
Edwards & Lewis, St. James Street
Rees, D., Templeton, near Narberth
Rees & James, Llan Mili, near Narberth
Williams, J. & Sons, Robeson Walkham

PENBROKE.
Brown, L., Manel Street, Orange Gardens
Davies & Morgan, The Green

PENBROKE DOCK.
Allen, J., Lawes Street
McAlpine, K. C. E., Front Street
Thomas, T., Queen Street East

SAUNDERSFOOT.
Frost, Bros.
Lawrence & Sons
Thomas, J., Waterloo House

RADNORSHIRE.

KNIGHTON
Deekins, S. W., Knocklass
Williams, J. D., Station Road

LLANDERINDOD
Harst, J.

NEWBRIDGE-ON-WYE.
Meredith, A.

PEESTHIGNE.
Price, J.

NAMES AND ADDRESSES OF ADDITIONAL BUILDERS IN WALES.

NAMES OF ADDITIONAL BUILDERS.

ADDRESS REGISTER OF MANUFACTURERS AND MERCHANTS.

For Address Register of Firms represented in this work, with Telegraphic Addresses and Telephone Numbers, see Pages commencing with 37.

Firms in Black-faced Type have announcements in the Work.

	PAGE		PAGE
Abbot & Co., Newark-on-Trent		Appleby, Charles & Co., 89, Cannon Street, E.C. ..	
Abell, Charles, Harthill Granite Quarries, near Ather-		Appleton, Burbey, & Williamson, Balmoral Buildings,	
stone,		92, Queen Victoria Street, E.C. ..	
Aberdeen Granite Works (Macdonald & Co., Limited),		Archdale, James, & Co., Manchester Works, Leeds	
Aberdeen		Street, Birmingham	
Acme Filter Co., Limited, 57, Dale End, Birmingham ..		Arnold & Son, 149, High Street, Bromley, Kent ..	
Acme Machines Co., Henrietta Street, Glasgow ..		Arnold Bros., Peterhill Road, Glasgow ..	
Acme Ventilating & Heating Co., 35, Turlington Street,		Asbestos Co., Limited, The United, 161, Queen Victoria	
Liverpool		Street E.C. ..	
Acme Wood Flooring Co., Limited, Glasshouse Street,		Asbestos Fireproof Paint Co., Limited, Clement Street	
Vauxhall S.E.	110 to 113	Works, Birmingham	
Action & Barman 78, Shoe Lane, E.C.		Ashford & Winder, Essex Street, Birmingham ..	
Adamant Co., Limited, The, 105, Colmore Row Bir-		Ashmore Benson, Passy, & Co., Ltd., St. Andrew-on Tees	
mingham		Ashton & Green, Limited, 11-15, Bury Street, St. Mary	
Adams & Co., Monk Bridge, York	127	Axe, E.C.	
Adams, George, & Sons, Mars Iron Works, Wolver-		Ashwell, Frank, & Co., Symonds Lane, Leicester	
hampton		Ashman Bros. & Wilson, Limited, Sheffield ..	
Adams, Robert, 67, Newington Causeway, S.E. ..	129 to 131	Aspinall & Co., Hollydale Works, Peckham, S.E. ..	
Agate, J. & S., Stearn Saw Mills, Hursbam, Sussex		Aspland & Co., Stafford Street, Peckham, S.E. ..	
Agate, J. & S., 85, Leadenhill Street, E.C.		Asquith, W., Engineer, Halifax	
Aird, Jas., Tipton, Staffordshire		Aiken & Sons, Sheffield Works, Birmingham ..	
Aitken, McNeill & Co., Helen Street, Govan, Glasgow ..		Aitken Filter and Engineering Co., Limited, 35, Haver-	
Albion Iron Co., 48, Upper Thames Street, E.C. ..	130	Street, E.C.	
Albion Lamp Co., Birmingham		Artwood & Co., Canal Head Foundry and Engineering	
Alho Carbon Light Co., Limited, 744, James Street,		Works, Ulverston	
Westminster S.W.		Attwood, J., Foster Street, Shourbridge	173
Aldin & Plaster, 302, Queen's-gate Gardens, W. ..		Auntess, S., New Inn Yard, Tottenham Court Rd., W.C.	
Aldons & Son, 18, Queen's Road, Peckham, S.E. ..		Arveling & Porter, Rochester, Kent	
Alexander, E.F., 36, Southampton Buildings, W.C. ..		Avery, J., & Co., 21, Great Portland Street, W. ..	
Allen, Sen., & Co., 4, Upper Thames Street, E.C. ..		Avery, W. & T., 24-26, Cow Cross Street, E.C. ..	
Allen James, & Sons, 21 and 23, Marylebone Lane Oxford		Aylesford Pottery Co., Aylesford, near Maidstone, Kent	
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Gent & Co., Faraday Works, Leicester		Hands, A. & Co., 9 Gracechurch Street, London, E.C. 402	
Gentles, William, 338, Sauchbhall Street, Glasgow		Hanks, H., 39, Berners Street, Oxford Street, W. 156	
Gerish, S. & Co., Bettelend Street, East Road, City Road, N.		Harries & Powell & Co., King Edward Road, Birmingham	
Getley, William, 65, Grange Lane, Birkenhead		Harrold, W., Manchester Road, Bradford	
Gibbard, J. R., 31, Salverton Place, Glasgow		Harting, W. H., 47, Finabury Pavement, London, E.C. 401	
Gibbons, J., St. John's Works, Church Lane, Wolverhampton		Hartman, A., 29, Ludgate Hill, E.C.	
Gibbs, J., 52, Surrey Street, Strand, London, W.C. 214 to 217	214 to 217	Harold & Co., 156, Lambeth Road, S.E.	
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Gill & Russell, Cyclops Tube Works, Walsall		Hartshill Brick & Tile Co., Stoke-on-Trent, North Staff.	
Gillow & Co., 409, Oxford Street, W.		Haskins & Bros., 24, Old Street, E.C.	
Glasgow Porcelain Enamel Co., 40, West Nile Street, Glasgow		Hassell & Singleton, Freeman Street, Birmingham	
Glasgow Zinc Co., Glasgow		Haughton, R. D., Grove Works, Jackfield, Shropshire	
Glover, T., & Co., 212 to 222, St. John's Street, Clerkenwell, London, E.C.		Hawes, C. E., Steam Joinery Works, Duxes, Ealing, N.W.	
Glover, T., & Co., Blackfins Street, Manchester		Hawley, J. & O. C., 123 to 125, Bromsgrove Street, Birmingham	
Glover, W. & Co., Salford, Manchester		Haslam & Co., Crown Foundry, Dudley Port, Tipton	
Goldard, Massey & Warner, Nottingham		Hayward Bros., & Eckstein, 187-193, Union Street, Borough S.E.	
Godwin, W., Son, Ludgate Works, Wokingham, near Reading		Hayward, W., & Sons, Brunswick Works, Bilston Road, Wolverhampton	
Goody, Cripps & Sons, Limited, 14, Wharf, Graham Street, City Road, London, N.	271	Hayward, Tyler & Co. (son Tyler (Hayward) & Co. 287	
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Gostling, Cubitt & Co., Limited, 1, Whitlington Avenue, Leadenhall Street, E.C.	271	Heath, E. & Co., 381 and 383, Kingsland Road, E.	
Goslett & Co., 65, Sebo Square, W.		Heath, E. & Sons, Cobden Works, Leopold Street, Birmingham	
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Grahamston Iron Co., Falkirk		Heston, Butler & Bayne, Garrick Street, Covent Garden, W.C.	
Gratrix, S. Ness & Bros., Manchester		Heston, C., 45, Berners Street, W.	
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Greton & Co., Prospect Row Wine Works, Birmingham		Hendry, R., Wood Street, Liverpool	
Griffiths & Co., Imperial Safe Works, Wolverhampton		Hepton & Son, Brass and Copper Works, Leeds	
Grover & Co., Limited, Britania Works, Wharf Road, City Road, N.	169	Heron, Thomas, 37, Ship Street, Kentish Town, N.W.	
Grundy, John, 30, Duncan Terrace, City Road, N.	3	Hewitson, Miner, & Theatrical, Limited, Tottenham Court Road, W.	
Grundy, John, Tyldesley, near Manchester	3	Hidderley G., Commercial Buildings, Union Square, Stockport	
Guest, John, & Son, Wolverhampton Road, Walsall		Higgs H. J., 21, Nicholas Street, W. 161	
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Gummer, W. H., & Co., Liffingham Brass Works, Rotherham		Hill, Anden & Co., 14, 16, 18, Constitution Hill, Birmingham	
		Hill, James, 100a, Queen Victoria Street, L.C.	
		Hill & Hay, Halifax	
		Hill & Hoggins, 11, Frederick Street, Birmingham	
		Hill & Smith, Bearley Hill, near Dudley, Staffordshire	
		Hindle, Norton & Co., Ironmonger Lane, Oldham, near Manchester	
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Hopton Wood Stone Co., Limited, Middlepeak, Wicks-worth, Derbyshire ..	..	Johnson & Co., 53, New Street, Birmingham ..	..
Horton J. & W., Elms Works, Smethwick, near Birmingham ..	..	Johnson & Phillips, 14, Union Court, E.C. ..	..
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Howard & Sons, 31, Barners Street, W ..	..	Jones and Barclay, 2, George Street, Birmingham ..	..
Howe & Co., Carlisle ..	..	Jones & Campbell, Larkett ..	..
Howie J. & R., Hatfield Fire Clay Works, near Kilmarnock ..	..	Jones & Fawcett, 120, Blackfriars Road, S.E. ..	..
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Hughes J. & J., Albion Metal Works, Woodcock Street, Birmingham ..	..	Kaye, J. & Sons, Kaye's Patent Lock Works, Leeds ..	..
Hughes & Lancaster, City Road, Chester ..	315B	Kaye, J. & Sons, 93, High Holborn, London, W.C. ..	..
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Hulet & Co., 55 and 56, High Holborn, W.C. ..	..	Kean & Sons, Church Street, Croydon ..	..
Humpherson, James, East Parade, Leeds ..	..	Kell, James, 57, Holborn Viaduct, E.C. ..	..
Humpherson & Co., 297, Fulham Road, South Kensington, S.W. ..	..	Kell, Richard, & Co., 7, Sandhill, Newcastle-on-Tyne ..	..
Hysit, T. & Farrington Road, E.C. ..	..	Kell, T. & Co., 49, King Street, Covent Garden, W.C. ..	..
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Iron and Steel Fencing and Buildings Co., Limited, 109, St. Vincent Street, Glasgow ..	..	King, Mirabam & Co., Bristol ..	..
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Jenks John, Jan., Bushbury Road, Heath Town, Wolverhampton ..	..	Lang, Wharton & Down, 32a, New Bond Street, W. ..	..
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Musgrave & Co., 97, New Road Street, W.	376 & 377	Pearl, F. Manchester	376 & 377
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Shewell & Co., Albert Hill, Darlington ..		Stannah, J., 20, Southwark Bridge Road, S.E. ..	
Shirer & Haddon, Cheltenham ..		Stanzel & Son, 61, East Street, Taunton ..	
Shirraw, A., & Co., Suffolk Works, Birmingham ..		Starkie, J. Wire Works, Preston ..	
Shirland, E. H., St. Gabriel's Works, Epsom Street, Manchester ..		Stations, J. C. & Co., Burton-on-Trent ..	
Shorland, E. H., Imperial Buildings, Ludgate Circus, E.C. ..		Statton, J. G., & Co., Limited, Alliance Engineering Works, West Drayton ..	
Shorrocks, J., R. 7, Queen Victoria Street, E.C. ..		Steel & Garland, Wharfedale Works, Sheffield ..	
Shrewsbury, G., 125, Newgate Street, E.C. ..		Steels & Wood, Stoke-on-Trent ..	
Sidaway, E., & Co., Victoria Foundry, West Bromwich ..		Stein, Charles, 21, Baker Street, W. ..	
Siebs, Gorman, & Co., 137 Westminster Bridge Road, S.E. ..		Stearns, Charles, Parquet Manufactory, Ravensburg ..	
Siemens Fricke, Horsely Road, Westminster, S.W. ..		Stearns, L., & Co., Limited, 3, Victoria Mansions, S.W. ..	
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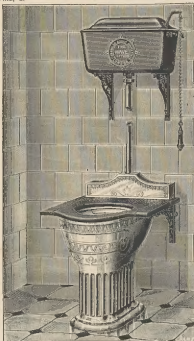
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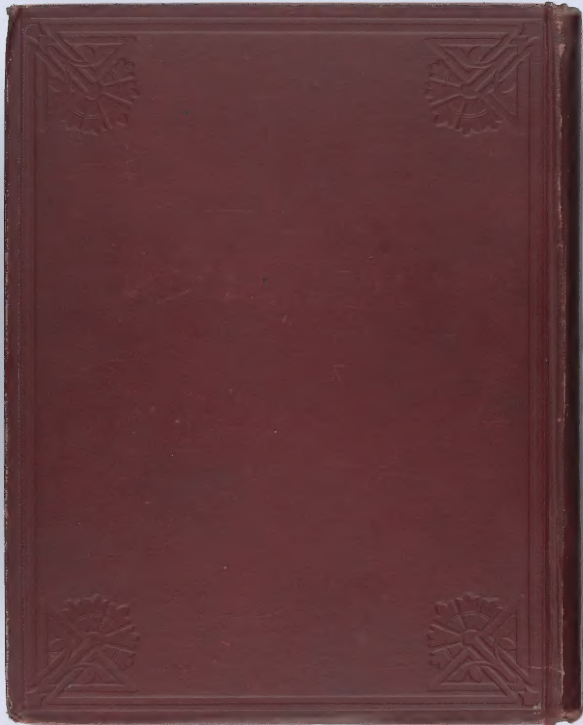
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